

UNIVERSITY OF COLORADO STUDIES

SERIES IN BIOLOGY

No. 29

DATA ON MOUNTAIN ENVIRONMENTS  
III. FRONT RANGE, COLORADO,  
FOUR CLIMAX REGIONS,  
1959-1964

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AND

MARKLEY W. PADDOCK

MISSOURI BOTANICAL GARDEN, ST. LOUIS, MISSOURI

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UNIVERSITY OF COLORADO PRESS

BOULDER, COLORADO, JANUARY, 1968

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## I. INTRODUCTION

The east slope of the Front Range rises from an elevation of 5,600 feet near Boulder, Colorado, to the Continental Divide, where some peaks are over 14,000 feet. This mountain landscape is diverse, and it can be subdivided into several major ecological regions on the basis of vegetation (Daubenmire, 1943; Marr, 1961). The montane forest of the lower mountains can be divided into a lower and an upper region; a subalpine forest region lies above the montane, and a tundra region occupies the landscape above tree limit.

The University of Colorado Institute of Arctic and Alpine Research has carried on a study of environments in the Front Range since 1951. The primary objective of the program at the time of its inception was to secure data for use in ecological research. Several ecological investigations have benefitted from use of the data (Marr, 1961; Osborn, 1963 and 1967, for example), as well as geology (Benedict, 1966) and climatology (Paddock, 1964) studies. In recent months we have completed summarization of twelve years of data for use in further ecological publications.

It has been necessary to collect a large amount of original data in order to accomplish our objectives. The ecological papers cited above actually use only condensations of the accumulated files of data; since our files provide an exceptionally long record for mountain regions, they are valuable for various additional types of investigations by other scientists. Consequently, we have initiated a publication program to make the basic data easily available.

Monthly tables of data from sixteen stations for one year (October 1952—September 1953) are in volume one of the data series (Marr, in press). The second volume (Marr *et al.*, in press) covers four stations for the period from 1953 through 1958. The present volume represents the same four stations as volume two and contains monthly and yearly summaries for the six years from 1959 through 1964 and period summaries for the entire 1953-1964 interval.

More details on the characteristics of the Front Range and its ecology are in Marr, 1961. Further detail on the design, instrumentation, methods and procedures of the environment program are in the first volume of this data series (Marr, in press).

Tables I and II summarize some basic information on the program, and

Figures 1 through 7 illustrate features of the Front Range landscape and our facilities.

The authors took part in all phases of the project, but they could not have produced this publication without the assistance of Ronald F. Foreman, Samuel Bamberg, Ralph Greene, Joyce Greene, and David Parkhurst in the field, and Carol J. Haverkamp, Sigrid R. Hilkey, and Mary Anna Adams Dahm in the laboratory. Financial support was provided by the United States Atomic Energy Commission (Contracts AT(11-1)-435 and AT(11-1)-1191), the United States National Space and Aeronautics Administration (Contract No. NSG-709), the United States Army Research Office (Contract No. DA-49-092 ARO-46), the National Science Foundation through many research participation grants, and the University of Colorado. Facility grants from the National Science Foundation (numbers NSF G 10768 and NSF G 23871) assisted in the improvement of the access road to our alpine tundra research area and in the construction of a winterized laboratory building at the Science Lodge Mountain Research Station. We wish to express appreciation for all of the above assistance.

TABLE I. Ecological Regions of the East Slope of the Front Range

	Lower Montane Forest	Upper Montane Forest	Subalpine Forest	Alpine Tundra
Climatic Climax Stand-Type	<i>Pinus ponderosa.</i>	<i>Pinus ponderosa/ Pseudotsuga menziesii</i>	<i>Picea engelmanni/ Abies lasiocarpa.</i>	<i>Kobresia</i> meadow.
Other Common Climax Stand-Types	<i>Pinus ponderosa/ Pseudotsuga menziesii.</i>  Dry grassland.	<i>Pinus ponderosa.</i>  <i>Pinus flexilis.</i>  Dry grassland	Wet meadow.  <i>Salix/Betula glandulosa.</i>  <i>Pinus <del>flexilis</del> flexilis.</i>	<i>Deschampia</i> meadow.  <i>Carex scopulorum</i> meadow.  Cushion plant.  <i>Trifolium parryi.</i>
Common Successional Stand-Types	<i>Pinus ponderosa.</i>  <i>Pinus ponderosa/ Pseudotsuga menziesii</i>	<i>Pinus ponderosa.</i>  <i>Populus tremuloides.</i>  <i>Pinus contorta</i>	<i>Populus tremuloides.</i>  <i>Pinus contorta.</i>  <i>Picea engelmanni/ Abies lasiocarpa.</i>	<i>Agropyron scribneri.</i>  Cushion plant.
Approximate Altitudinal Extent (ex- cluding eco- tones), in feet	6,000 to 7,700	8,000 to 9,000	9,300 to 11,000	11,400 to mountain tops

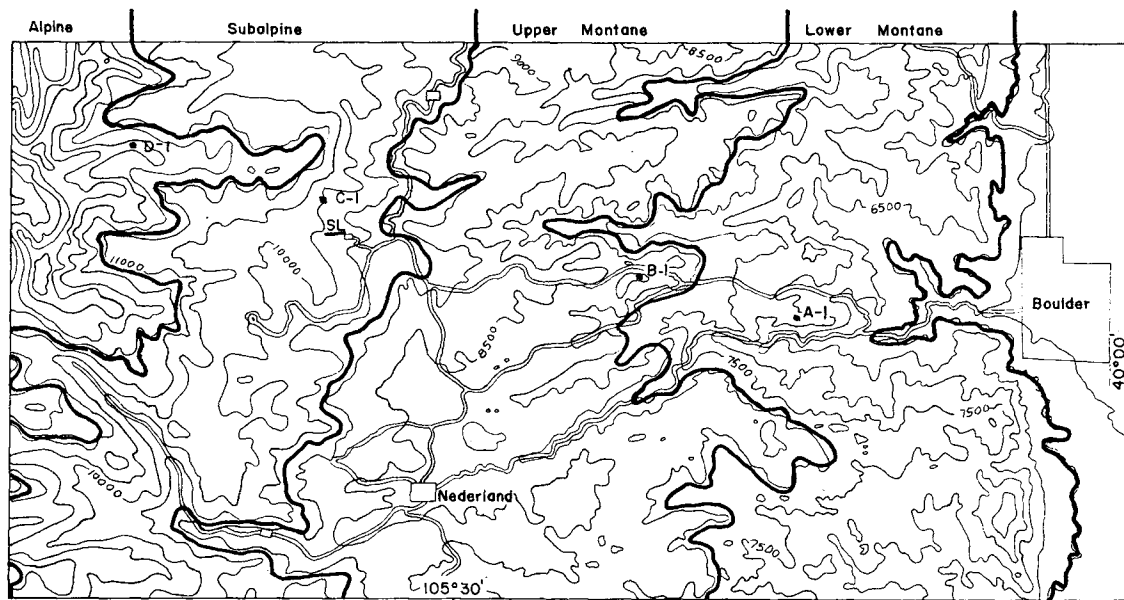
TABLE II. Features of the Front Range Environment Program

Factor	Instrument or Procedure	Time Feature of Record
Temperature, air	Bourdon-tube thermograph*	Continuous
Temperature, soil— 6- and 12-inch depths	Weather Bureau type maximum and minimum thermometers	Biweekly or weekly maximum and minimum
Wind	Three-cup totalizing anemometer**	One twenty-minute velocity reading and total miles of wind bi-weekly or weekly
Precipitation	Eight-inch diameter precipitation gauge***	Biweekly or weekly total
Snow depth	Graduated pole	Biweekly or weekly depth
Snow water content	Utah tube snow sampler	Monthly total increment
Soil moisture— 6- and 12-inch depths	Gravimetric	Monthly
Atmospheric moisture	Hair hygrothermograph*	Continuous

\* In cotton-belt U.S. Weather Bureau type louvered shelter with floor approximately four feet above ground level.

\*\* Approximately three feet above general crown level of trees in forest regions, and eight feet above the ground in tundra.

\*\*\* Level orifice about three feet above ground level.



EAST SLOPE OF THE FRONT RANGE IN BOULDER COUNTY, COLORADO

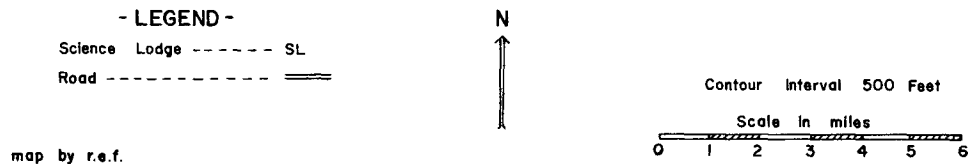


FIGURE 1. Map showing location of the four environment stations.

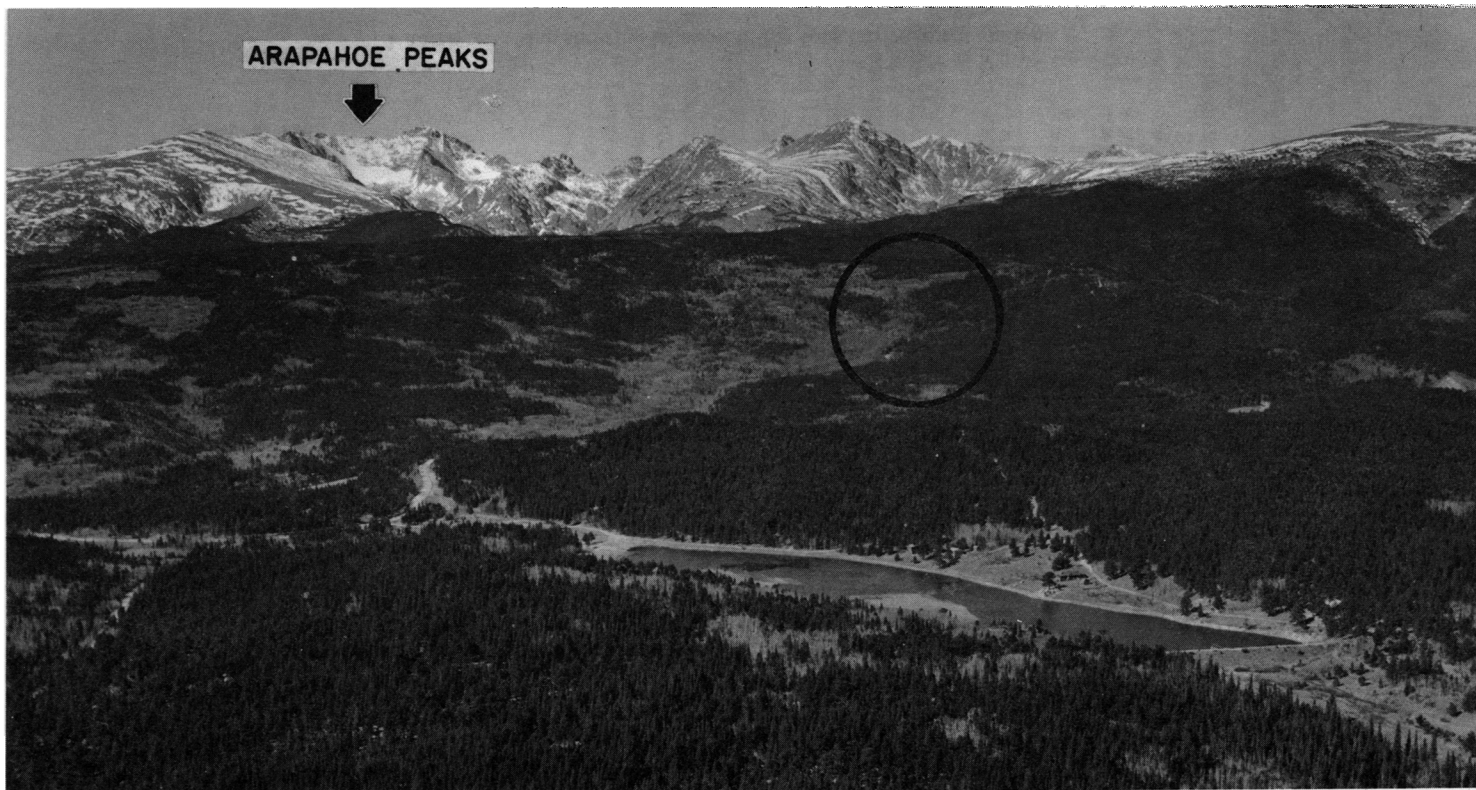


FIGURE 2. Aerial photograph of the Subalpine and Alpine Regions looking west. The Science Lodge Mountain Research Station is located within the circle in the upper right portion of the picture. Peaks in the background are part of the Continental Divide. An arrow indicates the Arapahoe Peaks. Niwot Ridge is at the right.

—*Photograph by Floyd Walters*

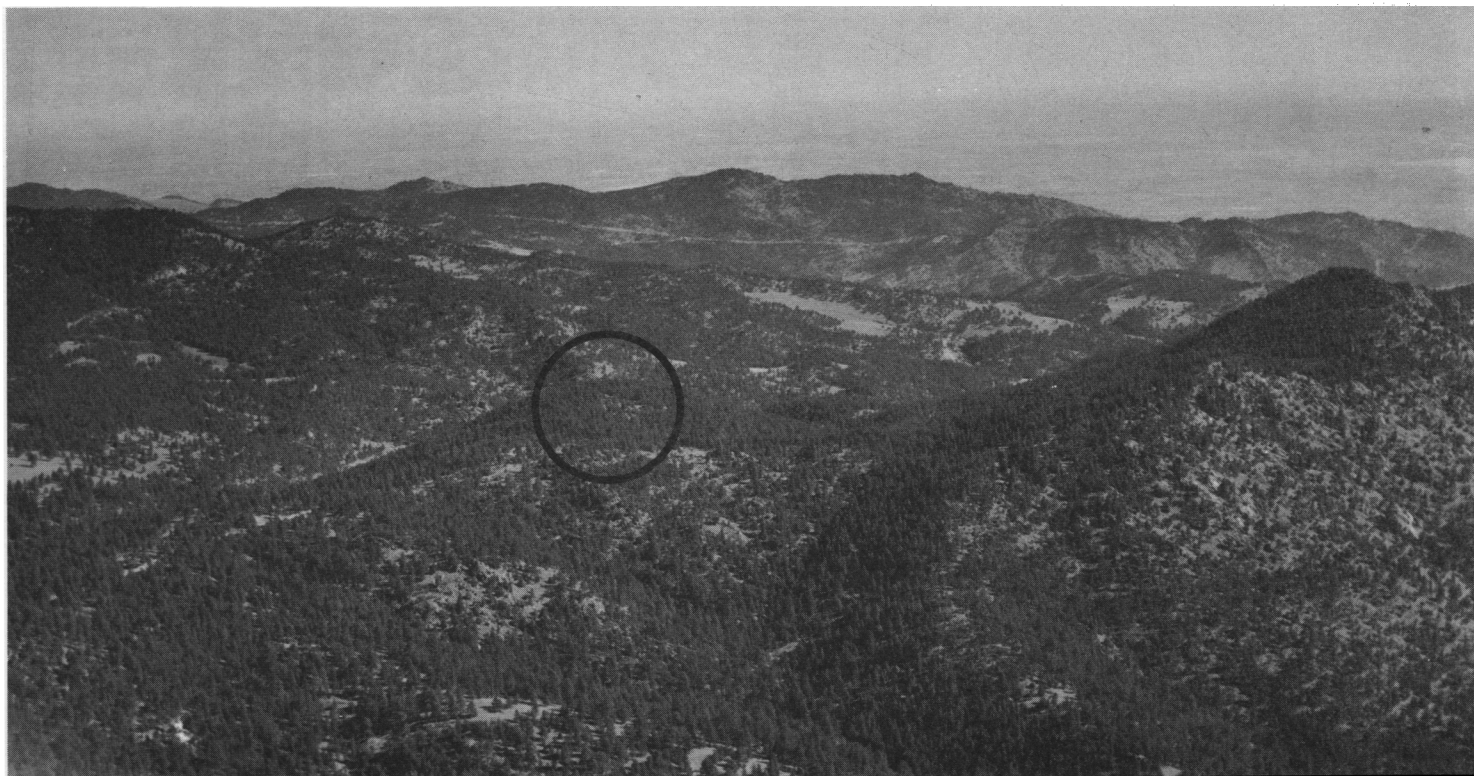


FIGURE 3. Aerial photograph looking east across the Lower Montane Region, with circle around site of A-1 station. Plains Region in background. Notice difference in stand-type due to exposure; open ponderosa pine on south-facing slope and more dense Douglas-fir/ponderosa pine on north-facing slope.

—*Photograph by Floyd Walters*





FIGURE 4. Aerial photograph of Lower Montane station A-1. Rectangular white roof of instrument shelter visible in left center. Transplant garden at upper left. Dead trees killed by bark beetles.

—*Photograph by Floyd Walters*



FIGURE 5. Aerial photograph of Upper Montane looking northwest. Site of station B-1 indicated with a circle. Forest is largely ponderosa pine stand-type.

—*Photograph by Floyd Walters*

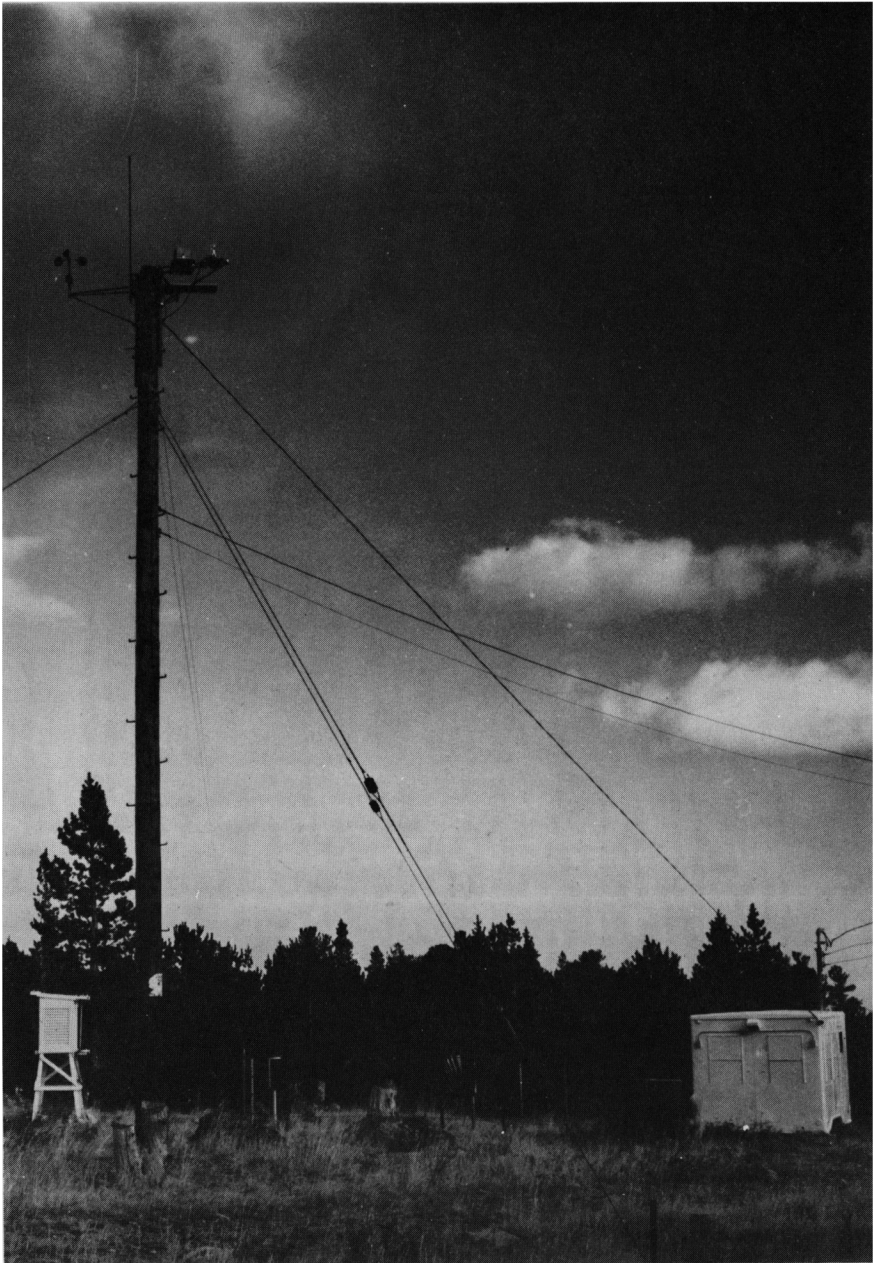


FIGURE 6. Subalpine C-1 station.

—*Photograph by John M. Clark*



**FIGURE 7.** Aerial photograph of Alpine D-1 station on Niwot Ridge. Peaks of Continental Divide in background. Upper Green Lakes at left. Elongate Arikaree Glacier at upper left. Lower white dot on flat ridge surface in foreground is door of Tundra Laboratory building. White dash just above building is D-1 instrument shelter.

*—National Center for Atmospheric Research Photograph*

## KEY TO THE SUMMARY TABLES

1. The following abbreviations have been used
  - N-D: No data were available for that day or period when instrument failure occurred or no observations were made.
  - T: Trace of snow or precipitation
  - Var.: Used in snow depth observations when snow cover was incomplete or highly variable
2. Arrows have been used to designate the period for which data apply. The value at the head of the arrow is representative for the period.
3. Means in columns where data are incomplete are based on actual number of days of data presented.

## II. MONTHLY SUMMARIES

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month January Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"		Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			Max.	Min.	Mean			
				Max.	Min.	Mean	Max.	Min.	Mean										
1	40	17	29												100	44	72		
2	17	-12	-03												100	95	98		
3	01	-15	-07												100	67	84		
4	27	00	14												68	24	46		
5	45	19	32												28	22	25		
6	51	28	40												68	22	45		
7	44	22	33	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	90	44	67			
8	49	24	37	32	31	32	34	33	34	1312	7	35	6	90	29	60			
9	56	29	43												44	30	37		
10	56	35	46												35	28	32		
11	57	32	45												70	29	50		
12	59	29	44												71	33	52		
13	58	34	46												100	34	67		
14	34	12	23												100	91	96		
15	27	06	17												100	46	73		
16	44	24	34	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	63	38	51			
17	43	19	31	33	30	32	34	33	33	1267	6	30	10	100	34	67			
18	45	23	34												100	43	72		
19	28	17	23												100	70	82		
20	17	-08	05												100	90	95		
21	23	-09	07												100	30	65		
22	37	20	29												53	29	41		
23	43	28	36												53	35	44		
24	58	33	46	32	31	32	34	33	33	1563	9	30	3	50	22	36			
25	45	31	38												100	40	70		
26	37	16	27												100	63	82		
27	40	17	29												100	32	66		
28	48	26	37												100	29	65		
29	35	14	25												100	35	68		
30	34	12	23												100	46	73		
31	24	10	17	32	30	31	33	33	33	1028	6	.50	5	8	6	100	90	95	
Month	59	-15	28	33	30	31	34	33	33	5170	7	1.45					100	22	64
Month Mean	39	17		32	31		33	33							83	44			

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 5-7" = 4%  
 ② Rim of gauge 40 inches above ground                              at 11-13" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
 and University of Colorado

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month February Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"		Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.	Mean									
1	21	06	14												100	90	95	
2	41	02	22												100	34	67	
3	38	14	26												60	32	46	
4	26	10	18												100	60	80	
5	28	06	17												100	43	72	
6	48	23	36	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	60	28	44		
7	54	17	36	32	31	31	33	32	32	1175	7	.85	8	100	32	66		
8	49	13	31												100	22	61	
9	17	08	13												100	66	83	
10	36	10	23												94	30	62	
11	50	21	36												39	20	25	
12	49	26	38												49	24	37	
13	32	18	25												100	38	69	
14	43	18	31	33	29	31	33	31	32	1212	7	.20	4	44	19	37		
15	52	34	43												63	20	42	
16	51	34	43												77	41	59	
17	47	22	35												100	47	74	
18	26	16	21												100	52	76	
19	38	14	26												100	47	74	
20	46	15	31												100	30	65	
21	44	24	34	32	30	31	32	31	32	1088	7	.05	4	100	41	71		
22	34	21	28												100	42	71	
23	43	20	32												100	32	66	
24	31	15	23												100	92	96	
25	42	16	29												100	32	66	
26	44	21	33												100	34	67	
27	42	21	32	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	100	38	69		
28	43	17	30	32	31	31	32	31	32	863	5	.50	4	12	11	100	32	66
29																		
30																		
31																		
Month	54	02	29	33	29	31	33	31	32	4338	6	1.60			100	19	64	
Month Mean	40	17		32	30		32	31							89	40		

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 5-7" = 4%  
 ② Rim of gauge 40 inches above ground                              at 11-13" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
 and University of Colorado

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean										
1	52	36	44												52	34	43		
2	40	18	29												100	42	71		
3	46	20	33												100	32	66		
4	31	11	21												100	36	68		
5	34	08	21												60	30	45		
6	35	12	26												100	48	74		
7	44	25	35	32	30	31	31	31	31	1518	9	.10	1		100	33	67		
8	41	22	32												100	32	66		
9	41	25	33												84	30	57		
10	38	17	28												100	32	66		
11	35	12	24												94	33	64		
12	49	27	38												47	26	37		
13	49	31	40												100	34	67		
14	31	11	21	32	30	31	32	32	32	2079	12	.05	2		100	52	76		
15	35	08	22												100	38	69		
16	48	20	34												54	32	43		
17	56	31	44												54	28	41		
18	56	33	45												77	27	52		
19	45	27	36												100	55	78		
20	31	13	22												100	83	92		
21	56	14	35												100	20	60		
22	56	35	46												36	18	27		
23	56	36	46	36	32	34	34	32	33	1355	6	.70	2		45	26	36		
24	49	26	38												100	45	73		
25	29	19	24												100	90	95		
26	43	20	32												100	60	80		
27	47	19	33												100	45	73		
28	47	25	36												100	38	69		
29	52	26	39												93	33	63		
30	56	30	43												79	29	54		
31	47	30	39	N-D	33	N-D	36	33	34	915	5	2.10	6	15	14	100	34	67	
Month	56	08	33	36	30	32	36	31	32	5867	8	2.95					100	18	62
Month Mean	44	22		33	31		33	32							86	39			
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min					

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 5-7" = 4% at 11-13" = 4%

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean										
1	56	34	45												59	38	49		
2	58	30	44												100	30	65		
3	53	27	40												100	34	67		
4	70	47	59	42	33	38	39	34	37	975	10	.00	0		39	20	30		
5	72	36	54												66	22	44		
6	73	31	52												100	20	60		
7	35	20	28												100	56	78		
8	28	17	23												100	82	91		
9	22	06	14												100	100	100		
10	42	09	26												100	33	67		
11	24	N-D	N-D												100	76	88		
12	40	06	23	50	35	42	44	36	40	897	5	2.25	16		100	40	70		
13	59	21	40												77	25	51		
14	59	40	50												74	30	52		
15	56	34	45												100	39	70		
16	52	29	41												95	32	64		
17	50	23	37												100	52	76		
18	35	24	30	42	35	38	40	35	37	860	6	.00	6		100	100	100		
19	38	20	29												100	88	94		
20	33	18	26												100	68	84		
21	38	19	29												100	66	83		
22	55	26	41												78	21	50		
23	60	38	49												39	25	32		
24	67	42	55												68	17	43		
25	57	32	45	48	34	41	43	35	39	1024	6	1.05	0		100	26	63		
26	61	43	52												70	30	50		
27	55	36	46												98	31	65		
28	55	35	45												89	40	65		
29	68	36	52												89	24	57		
30	78	49	64	52	42	47	47	41	44	1071	9	.10	0	11	15	47	20	34	
31																			
Month	78	06	41	52	33	41	47	34	39	4827	7	3.40					100	17	65
Month Mean	53	29		47	36		42	36							86	43			
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min					

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 5-7" = 4% at 11-13" = 4%



Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month May Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture		Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			% Dry Wt. 5-7"	% Dry Wt. 11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean									
1	75	53	64													50	28	39
2	78	50	64													51	26	39
3	60	41	51													100	40	70
4	48	33	41													100	100	100
5	56	33	45													100	29	66
6	57	32	45													100	40	70
7	29	33	31													100	100	100
8	50	31	41													100	61	81
9	64	41	53	61	42	52	52	44	48	1056	5	.80	0			68	24	46
10	59	37	48													N-D	N-D	N-D
11	75	46	61													N-D	N-D	N-D
12	73	38	56													95	23	59
13	60	36	48													89	54	72
14	58	37	48													100	58	79
15	48	40	44													100	94	97
16	76	39	58	60	46	53	53	44	49	896	5	.10	0			100	18	59
17	72	44	58													62	25	44
18	63	42	53													100	46	73
19	56	38	47													100	62	81
20	44	32	38													100	100	100
21	40	30	35													100	100	100
22	44	31	38													100	80	90
23	57	34	46	61	39	50	55	42	48	582	4	2.60	2			100	94	97
24	74	48	61													100	23	62
25	70	46	58													70	28	49
26	66	43	55													86	32	59
27	71	41	56													87	25	56
28	68	42	55													100	52	76
29	66	43	55													100	68	84
30	72	42	57													100	18	59
31	47	40	44	62	39	50	56	41	49	1126	6	.20	0	12	10	100	100	100
Month Mean	78	30	50	62	39	51	56	41	48	3660	5	3.70				100	18	73
Month Mean	61	39		61	41		54	43								92	53	

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 5-7" = 4%  
 at 11-13" = 4%

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month June Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture		Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			% Dry Wt. 5-7"	% Dry Wt. 11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean										
1	62	39	51													100	51	76	
2	70	42	56													87	30	59	
3	73	44	59													74	25	50	
4	79	51	65													45	16	31	
5	81	51	66													47	29	38	
6	86	52	69	71	50	60	60	51	56	879	6	.08	0			50	25	38	
7	87	59	73													48	22	35	
8	77	56	67													90	38	64	
9	85	53	69													82	22	52	
10	88	59	74													49	20	35	
11	84	56	70													57	29	43	
12	82	54	68													62	34	48	
13	88	58	73													58	30	44	
14	84	58	71													100	40	70	
15	86	56	71	73	60	67	65	59	62	1397	7	.11	0			100	34	67	
16	80	56	68													100	42	71	
17	80	54	67													82	36	59	
18	85	58	72													74	26	50	
19	73	52	63													100	53	77	
20	79	53	66													100	36	68	
21	77	54	66													85	41	63	
22	72	51	62													100	48	74	
23	91	57	74	72	59	66	64	59	62	1175	6	1.46	0			61	24	43	
24	88	58	73													100	27	64	
25	85	55	70													100	31	66	
26	83	56	70													71	26	49	
27	77	48	63													87	32	60	
28	74	46	60													100	49	75	
29	51	46	49													100	100	100	
30	71	44	58	72	57	64	64	58	61	1210	7	.88	0	8	7	100	17	59	
31																			
Month Mean	91	39	66	73	50	64	65	51	60	4661	7	2.53				100	17	57	
Month Mean	79	53		72	57		63	57								80	34		

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 5-7" = 4%  
 at 11-13" = 4%

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month July Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"		Relative Humidity		
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.	Mean									
1	74	41	58													100	43	72
2	82	55	69													60	22	41
3	84	55	70													63	26	45
4	80	53	67													69	28	49
5	78	51	65													62	40	51
6	89	57	73													48	18	33
7	89	61	75	74	57	65	66	58	62	1274	8	.00	0		54	30	42	
8	78	49	64													54	33	44
9	81	44	63													60	37	49
10	78	51	65													56	34	45
11	80	49	65													68	38	53
12	77	51	64													78	38	58
13	85	57	71													84	30	57
14	87	54	71	76	63	69	67	63	65	896	5	.00	0		100	36	68	
15	88	55	72													100	36	68
16	73	53	63													100	42	71
17	80	50	65													100	34	67
18	76	51	64													100	40	70
19	73	47	60													100	45	73
20	78	54	66													100	36	68
21	85	53	69	72	58	65	66	60	63	898	5	.77	0		62	31	46	
22	86	60	73													90	39	65
23	88	56	72													50	28	39
24	89	59	74													52	28	40
25	89	53	71													100	34	67
26	79	54	67													100	32	66
27	81	58	70													88	34	61
28	90	64	77													51	19	35
29	74	54	64													100	38	69
30	82	53	68													86	39	63
31	85	61	73	76	60	68	67	60	64	1482	6	.41	0	7	7	100	38	69
Month	90	41	68	76	57	67	67	58	63	4550	6	1.18				100	18	56
Month Mean	82	54		74	59		67	60								79	34	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 5-7" = 4% at 11-13" = 4%
- ② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month August Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"		Relative Humidity		
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.	Mean									
1	83	57	70													100	44	72
2	86	60	73													100	28	64
3	77	60	68													60	32	46
4	83	56	70													85	28	57
5	84	53	69													100	31	66
6	62	50	56													100	43	72
7	74	49	62	72	58	65	66	60	63	887	5	.67	0		100	53	77	
8	86	53	70													76	12	44
9	89	61	75													39	15	27
10	87	59	73													39	16	28
11	93	61	77													33	15	24
12	78	59	69													100	33	67
13	86	52	69	74	57	66	67	60	64	942	7	.10	0		100	21	61	
14	53	48	51													100	100	100
15	79	43	61													100	24	62
16	83	53	68													42	14	28
17	90	59	75													26	10	18
18	89	62	76													38	13	26
19	74	53	64													100	38	69
20	79	52	66	76	57	66	67	60	63	841	5	.36	0		100	34	67	
21	76	56	66													76	31	54
22	84	55	70													74	22	48
23	82	56	69													62	20	41
24	86	54	70	72	60	66	65	61	63	635	7	.16	0		72	30	51	
25	76	53	65													100	52	76
26	81	51	66													100	21	61
27	85	55	70													52	19	36
28	87	59	73													41	17	29
29	90	59	75													35	16	26
30	79	54	67													52	28	40
31	86	53	70	76	61	68	68	62	65	1228	7	.04	0	8	4	47	14	31
Month	93	43	69	76	57	66	68	60	64	4533	6	1.33				100	10	50
Month Mean	82	55		74	58		67	61								73	28	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 5-7" = 4% at 11-13" = 4%
- ② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month September Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.		Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean									
1	77	49	63													57	22	40
2	71	42	57													87	35	61
3	79	46	63													60	30	45
4	93	59	76													30	17	24
5	84	58	71													30	18	24
6	92	64	78	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	29	16	23	
7	91	62	77	76	60	68	67	62	65	1012	6	.00	0		36	21	29	
8	88	63	76												35	17	26	
9	67	42	55												76	27	52	
10	83	44	64												56	23	40	
11	88	54	71												40	24	32	
12	84	54	69												44	23	34	
13	78	49	64	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	46	30	38		
14	85	54	70	77	61	69	68	67	68	929	6	.00	0		48	28	38	
15	79	49	64												100	33	67	
16	50	40	45												100	100	100	
17	43	36	40												100	82	91	
18	65	36	51	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	90	24	57		
19	77	51	64	71	52	61	66	56	61	529	5	.53	0		64	23	44	
20	71	46	59												70	28	49	
21	73	43	58												77	26	52	
22	63	38	51												100	33	67	
23	58	39	49												100	51	76	
24	41	35	38												100	62	81	
25	56	37	47												100	29	65	
26	54	34	44	66	47	56	59	52	55	914	5	1.19	0		100	37	69	
27	49	34	42												100	47	74	
28	51	27	39												100	22	61	
29	32	22	27												100	78	89	
30	32	17	25	54	42	48	53	47	50	592	7	1.02	7	N-D	N-D	100	97	99
31																		
Month	93	17	56	77	42	60	68	47	60	3976	6	2.74			100	16	55	
Month Mean	69	44		69	52		63	57							73	37		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 5-7" = 4% at 11-13" = 4%

Data collected for Front Range Ecology Project  
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Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month October Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.		Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean									
1	33	23	28													100	88	94
2	38	22	30													100	70	85
3	45	23	34													100	46	73
4	54	30	42											4	12	100	32	66
5	61	32	47													88	28	58
6	64	42	53													47	26	37
7	57	33	45													68	33	51
8	53	25	39													100	33	67
9	58	38	48	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	58	31	45	
10	54	33	44	49	38	44	47	41	44	1219	5	.00	0		100	40	70	
11	66	26	46												100	25	63	
12	60	34	47												100	32	66	
13	56	31	44												100	34	62	
14	63	40	52												48	28	38	
15	70	37	54												100	14	57	
16	37	25	31	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	100	100	
17	57	23	40	52	42	47	49	45	47	825	5	.70	1	16	12	100	18	59
18	74	46	60												20	11	16	
19	67	42	55												44	20	32	
20	61	39	50												90	34	62	
21	62	41	52												58	25	42	
22	55	38	47												58	32	45	
23	52	31	42	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	56	78	
24	68	30	49	51	41	46	49	43	46	1139	7	.15	0		100	24	62	
25	72	30	51												92	18	55	
26	51	26	39												100	33	67	
27	66	26	46												93	22	63	
28	49	31	40												100	56	78	
29	31	23	27												100	100	100	
30	26	14	20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	95	98	
31	55	15	35	51	39	45	49	41	45	714	4	1.35	8	12	7	100	47	74
Month	74	14	43	52	38	45	49	41	45	3897	5	2.20			100	11	63	
Month Mean	55	31		51	40		48	42							86	40		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 5-7" = 4% at 11-13" = 4%

Data collected for Front Range Ecology Project  
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Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month November Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"		Relative Humidity		
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Average Vel. mph			5-7"	11-13"	Max.	Min.	Mean
1	63	38	51													100	21	61
2	64	36	50													57	22	40
3	46	38	42													72	44	58
4	43	10	27													100	27	64
5	26	01	14													100	29	65
6	47	22	35													37	21	29
7	45	24	35	41	36	38	42	38	40	1285	8	10	0			100	28	64
8	53	31	42													60	26	43
9	62	37	50													38	20	29
10	59	23	41													100	23	62
11	52	20	36													100	22	61
12	47	04	26													100	20	60
13	04	-08	-02													100	87	94
14	51	04	28	41	36	38	40	37	39	1360	8	.05	T			100	04	52
15	54	10	32													100	12	56
16	14	-06	04													100	74	87
17	57	14	36													80	11	46
18	62	43	53													13	06	10
19	61	30	46													53	09	31
20	56	24	40													81	16	49
21	56	31	44	40	33	36	39	36	37	1255	8	.00	0			64	18	41
22	46	27	37													86	32	59
23	51	27	39													100	46	73
24	50	27	39													100	21	61
25	48	15	32													100	18	59
26	24	08	16													100	42	71
27	31	08	20													100	29	65
28	46	24	35													44	24	34
29	37	27	32													40	32	36
30	46	22	34	40	35	37	42	36	39	2553	12	1.00	4	13	12	100	24	62
31																		
Month	64	-08	34	41	33	38	42	36	39	6453	9	1.15				100	04	54
Month Mean	47	20		40	35		41	37								81	27	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 5-7" = 4%  
 at 11-13" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
 and University of Colorado

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month December Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"		Relative Humidity		
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Average Vel. mph			5-7"	11-13"	Max.	Min.	Mean
1	50	18	34													100	30	65
2	62	37	50													36	13	25
3	64	36	50													44	08	26
4	36	08	22													100	32	66
5	32	08	20	36	34	35	38	35	36	764	7	.00	5			74	31	53
6	52	30	41													34	22	28
7	54	25	40													60	18	39
8	43	08	26													100	20	60
9	50	31	41													40	18	29
10	45	31	38													100	38	69
11	49	28	39													100	23	62
12	48	27	38	34	33	33	36	34	35	1291	8	.00	0	10	12	44	26	35
13	45	24	35													85	19	52
14	35	20	28													94	40	67
15	53	25	39													46	17	32
16	52	27	40													89	32	61
17	43	23	33													100	46	73
18	54	21	38													100	15	58
19	45	28	37													68	40	54
20	48	25	37													52	27	40
21	42	27	35													34	17	26
22	35	22	29	33	32	32	35	33	34	1056	4	.00	T			97	34	66
23	46	23	35													94	20	57
24	50	27	39													55	33	44
25	54	36	45													60	30	45
26	38	20	29													100	51	76
27	36	16	26													100	31	66
28	40	20	30													48	15	32
29	30	10	20													100	47	74
30	34	11	23													100	25	63
31	38	22	30	32	28	30	34	N-D	N-D	872	4	.10	2	14	N-D	100	25	63
Month	64	08	34	36	28	32	38	33	35	3983	5	.10				100	08	52
Month Mean	45	23		33	31		35	34								76	27	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 5-7" = 4%  
 at 11-13" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
 and University of Colorado

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month January Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	20	02	11												100	83	96		
2	20	-01	10												100	33	67		
3	19	01	10												100	44	72		
4	34	00	17												100	28	64		
5	33	04	19												88	28	58		
6	42	20	31												67	35	51		
7	41	26	34												90	44	67		
8	52	33	43												53	23	38		
9	52	38	45	31	25	28	32	29	31	1386	6	15	0		48	21	35		
10	53	31	42												54	18	36		
11	51	28	40												77	35	56		
12	45	28	37												88	52	70		
13	42	18	30												100	52	76		
14	23	13	18												100	94	97		
15	37	15	26												100	40	70		
16	19	08	14	32	30	31	32	31	31	720	4	30	3		100	94	97		
17	16	04	10												100	97	99		
18	19	-03	08												100	55	78		
19	20	-02	09												94	33	64		
20	29	10	20												75	36	56		
21	27	04	16												100	54	77		
22	43	02	23												100	20	60		
23	40	25	33	33	30	31	32	26	28	853	5	30	5		59	30	46		
24	49	24	37												59	30	45		
25	53	31	42												57	28	43		
26	47	28	38												65	33	49		
27	47	26	37												100	34	67		
28	38	19	29												57	28	43		
29	61	26	44												34	09	22		
30	58	31	45												28	06	17		
31	40	25	33	33	29	31	32	31	36	1212	6	10	T		100	28	64		
Month Mean	31	-03	27	33	25	30	32	26	30	4171	6	85			100	06	60		
Month Mean	68	17		32	28		32	29							80	40			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month February Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	39	22	31												100	26	63		
2	38	24	31												100	44	72		
3	36	21	29												100	62	81		
4	39	16	28												100	29	65		
5	46	15	31												81	18	50		
6	43	23	33	32	31	31	32	31	32	795	6	25	3		63	28	46		
7	52	27	40												54	31	43		
8	46	35	41												100	44	72		
9	36	20	28												100	24	62		
10	34	15	25												100	47	74		
11	31	14	23												100	49	75		
12	41	13	27												100	17	59		
13	43	24	34	32	30	31	33	32	32	1312	8	30	T	26	18	N-D	100	20	60
14	30	11	21												100	54	77		
15	35	15	25												82	30	56		
16	32	13	23												100	23	62		
17	30	06	18												75	23	49		
18	32	04	18												70	33	52		
19	31	11	21												100	53	77		
20	26	09	18	32	30	31	32	32	32	1018	6	15	5		100	60	80		
21	39	16	28												81	26	54		
22	20	00	10												100	76	88		
23	18	-06	06												100	59	80		
24	17	-08	05												100	56	78		
25	22	-02	10												100	45	73		
26	03	-06	-02												100	87	94		
27	11	-04	04												100	78	89		
28	14	-02	06												100	70	85		
29	25	-03	11	32	30	31	32	31	32	749	3	1.60	18		100	48	74		
30																			
31																			
Month Mean	52	-08	21	32	30	31	33	31	32	3874	5	2.30			100	17	68		
Month Mean	31	11		32	30		32	31							93	43			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month March Year 1960  
 UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Avg. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	24	02	13																	
2	16	-06	05																	
3	36	-08	14																	
4	43	-07	18																	
5	43	23	33																	
6	50	32	41	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
7	51	29	40	32	31	32	33	31	32	1003	7	.25	8							
8	44	33	29																	
9	48	30	39																	
10	40	19	30																	
11	39	17	28	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
12	43	16	30	33	32	32	33	32	32	1017	8	.15	2							
13	26	13	20																	
14	45	16	31																	
15	32	10	21																	
16	32	11	22																	
17	37	06	22																	
18	48	29	39	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
19	53	31	42	32	32	32	33	31	32	1020	6	1.20	5							
20	57	35	46																	
21	61	33	47																	
22	59	32	46																	
23	56	32	44																	
24	52	30	41	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
25	61	37	49																	
26	64	40	52	40	32	35	37	32	34	1011	6	.00	0							
27	69	44	57																	
28	58	34	46																	
29	48	28	38																	
30	61	35	47	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
31	43	26	35	48	37	42	41	N-D	N-D	1049	9	.00	0	48	15	N-D	100	42	71	
Month	69	-08	34	48	31	35	41	31	32	5100	7	1.60								
Month Mean	46	22		37	33		35	31												

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 0-2" = 8%      at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month April Year 1960  
 UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Avg. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	38	20	29																	
2	46	18	32																	
3	58	33	46																	
4	58	29	44																	
5	67	42	55																	
6	67	39	53																	
7	45	33	39																	
8	47	31	39																	
9	68	37	53	↓	↓	↓	↓	↓	↓	1385	6	.65	0							
10	72	44	58																	
11	58	37	48																	
12	53	37	45																	
13	54	30	42																	
14	66	35	51																	
15	56	35	46	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
16	42	20	31	54	41	47	48	41	44	2529	15	.00	0	37	13	11	100	19	60	
17	48	17	33																	
18	67	40	54																	
19	74	36	55																	
20	66	33	50																	
21	76	51	64																	
22	74	50	62	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
23	68	46	57	61	40	50	52	42	47	1367	8	.05	0	13	12	12	80	22	51	
24	49	26	38																	
25	48	23	36																	
26	50	25	38																	
27	36	26	31																	
28	40	26	33																	
29	30	20	25	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
30	43	14	29	61	39	50	53	41	47	591	4	1.60	5							
31																				
Month	76	14	44	61	39	48	53	36	44	5872	8	2.30								
Month Mean	56	32		56	39		49	40												

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 0-2" = 8%      at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month May Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 inches			11-13 inches				Total Miles	Average Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	52	27	40													66	18	42	
2	58	34	46													44	24	34	
3	60	35	48													95	23	59	
4	56	33	45													100	46	73	
5	36	27	32													100	100	100	
6	50	27	39													100	48	74	
7	57	32	45	52	37	44	46	38	42	761	5	2.65	T			100	52	76	
8	64	42	53													100	30	65	
9	60	37	49													100	45	73	
10	65	38	52													100	34	67	
11	66	35	51													100	32	66	
12	78	46	62													59	18	39	
13	78	50	64													40	10	25	
14	62	42	52	62	37	49	55	38	46	831	5	.00	0	37	14	13	67	22	45
15	66	41	54													100	40	70	
16	60	41	51													100	48	74	
17	59	37	48													100	62	81	
18	58	31	45													100	25	63	
19	37	28	33													100	68	84	
20	53	27	40													92	25	59	
21	73	41	57	61	40	50	54	47	50	756	5	1.55	0			37	11	24	
22	74	50	62													36	15	26	
23	70	50	60													45	22	34	
24	57	39	53													100	28	64	
25	68	38	53													54	09	32	
26	67	42	55													64	22	43	
27	71	44	58													100	27	64	
28	65	43	54													100	30	65	
29	67	44	56													100	30	65	
30	77	46	62													59	11	35	
31	79	51	65	68	47	57	59	45	52	1608	7	.08	0			42	18	30	
Month	79	27	51	68	37	50	59	38	48	3956	5	4.28				100	09	56	
Month Mean	63	39		61	40		53	42								81	32		

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4% at 5-7" = 4%

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month June Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 inches			11-13 inches				Total Miles	Average Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	73	51	62													51	25	38	
2	77	52	64													49	26	38	
3	84	52	68													38	16	27	
4	87	54	71													100	13	57	
5	55	47	51													100	100	100	
6	61	47	54													100	60	80	
7	66	44	55	73	55	64	64	56	60	881	5	.27	0			100	55	78	
8	63	45	54													100	54	77	
9	67	44	56													100	36	68	
10	57	43	50													100	86	93	
11	63	44	54													100	55	78	
12	64	42	53													98	26	62	
13	67	39	53													100	31	56	
14	80	54	67	62	52	57	60	55	57	756	5	.84	0	12	11	10	97	17	57
15	72	50	61													99	26	63	
16	76	49	63													85	26	56	
17	88	56	72													93	17	55	
18	79	51	65													100	39	70	
19	89	49	69													100	16	58	
20	87	53	70													76	14	45	
21	72	43	58	76	56	66	66	56	61	1245	7	.00	0	10	9	9	65	22	44
22	84	46	65													100	16	58	
23	62	38	50													100	53	77	
24	70	40	55													100	29	65	
25	83	51	67													62	16	39	
26	87	58	73													44	07	26	
27	86	55	71													50	04	27	
28	87	60	74													56	13	35	
29	86	55	71													76	12	44	
30	74	54	64	78	60	69	70	60	65	1396	6	.18	0	6	5	5	100	12	56
31																			
Month	89	38	62	78	52	64	70	55	61	4278	6	1.29				100	04	58	
Month Mean	75	49		72	56		65	57								85	31		

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4% at 5-7" = 4%

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month July Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 inches			11-13 inches				Total Miles	Average mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	90	52	71												100	10	55		
2	93	51	72												100	10	55		
3	67	45	56												100	59	80		
4	70	44	57												100	36	68		
5	54	47	51												100	98	99		
6	63	43	53	77	57	67	68	59	64	659	5	.65	0	18	13	8	100	66	83
7	67	47	57																
8	79	49	64														75	27	51
9	85	56	71														57	16	37
10	87	59	73														96	18	57
11	76	53	65														100	32	66
12	74	51	63														100	44	72
13	71	50	61	80	56	68	67	58	63	986	6	.50	0	18	4	4	100	46	73
14	78	49	64														100	39	70
15	80	55	68														66	22	44
16	86	56	71														48	16	32
17	82	51	67														100	20	60
18	78	51	65														72	25	49
19	83	54	69	76	58	67	66	60	63	952	6	.18	0	6	5	4	51	18	35
20	88	58	73														42	11	27
21	90	59	75														34	17	26
22	88	62	75														37	22	30
23	90	59	75														44	20	32
24	84	56	70														100	28	64
25	83	57	70														48	16	32
26	92	62	77	79	62	70	69	63	66	1165	7	.18	0	8	5	3	28	12	20
27	91	62	77														81	16	49
28	89	60	75														100	21	61
29	85	56	71														100	17	59
30	82	52	67														100	25	63
31	87	59	73	79	64	71	69	63	66	829	7	.30	0	5	5	5	100	25	63
Month	93	43	67	80	56	69	69	58	64	4591	6	1.81					100	10	54
Month Mean	81	53		78	59		68	61									80	28	
Key	Thermograph (Bourdon Tube) ①	Average of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Average of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 8%  
at 5-7" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month August Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 inches			11-13 inches				Total Miles	Average mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	88	59	74												100	26	63		
2	90	61	76												82	20	51		
3	88	57	73												57	26	42		
4	92	59	76												54	12	33		
5	90	55	73												100	21	61		
6	93	59	76												57	04	31		
7	82	53	68												100	18	59		
8	67	47	57												100	57	79		
9	49	45	47	78	63	70	70	63	67	1340	6	.50	0				100	100	100
10	69	42	56												100	46	73		
11	75	53	64												100	25	63		
12	85	57	71												35	14	25		
13	77	55	66												77	22	50		
14	80	53	67												68	26	47		
15	89	56	73												55	14	35		
16	85	43	64												100	20	60		
17	64	41	53	74	57	66	61	60	61	1285	7	.24	0	6	5	4	100	29	65
18	73	40	57												100	30	65		
19	84	50	67												62	13	38		
20	85	56	71												33	14	24		
21	93	59	76												26	09	18		
22	86	60	73												59	16	38		
23	78	47	63												100	30	65		
24	76	46	61	74	56	65	66	59	63	1074	7	.06	0	3	5	5	97	22	60
25	75	49	62												86	13	50		
26	82	47	65												47	24	36		
27	88	58	73												34	12	23		
28	71	47	59												98	21	60		
29	84	49	67												84	10	47		
30	82	57	75												22	08	15		
31	92	62	77	76	62	69	67	61	64	1250	7	.00	0	5	4	3	34	16	25
Month	93	40	67	78	56	67	70	59	63	4949	7	.80					100	04	48
Month Mean	81	52		76	59		66	61							73	23			
Key	Thermograph (Bourdon Tube) ①	Average of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Average of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 8%  
at 5-7" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado



Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month September Year 1960  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.				Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean		
1	90	59	75																41	22	32
2	84	56	70																100	30	65
3	87	59	73																70	21	46
4	90	61	76																43	16	30
5	87	63	75																48	18	33
6	82	56	69																100	26	63
7	78	52	65	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	30	65	
8	63	42	53	78	62	70	69	63	66	1189	6	↓	0	24	5	3	100	50	75		
9	50	41	46															100	54	77	
10	76	44	60															54	11	33	
11	68	47	58															59	16	38	
12	78	44	61															62	14	38	
13	76	48	62															39	18	29	
14	77	50	64															62	20	41	
15	66	45	56															100	30	65	
16	76	47	62															100	14	57	
17	53	44	59	69	53	61	65	58	61	1262	6	↓	0	3	3	3	100	48	74		
18	74	45	60															58	12	35	
19	77	49	63															38	10	24	
20	77	52	65															28	12	20	
21	64	40	52															93	22	58	
22	53	36	45															100	54	77	
23	62	35	49	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	20	60	
24	61	36	49	67	50	58	61	54	58	1028	6	↓	0	6	3	3	79	34	57		
25	76	48	62															38	16	27	
26	67	41	54															100	34	67	
27	73	39	56															100	20	60	
28	68	50	59															42	20	31	
29	63	39	51	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	67	26	47	
30	77	35	56	66	52	59	60	54	57	905	6	↓	0	4	3	3	86	10	48		
31																					
Month Mean	90	35	60	78	50	62	69	54	60	4384	6	86						100	10	49	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.						

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 at 5-7" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month October Year 1960  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.				Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean		
1	78	49	64																37	16	27
2	63	39	51																76	37	57
3	70	49	60																38	20	29
4	72	49	61																34	18	26
5	73	49	61																34	18	26
6	74	45	60																34	18	26
7	76	49	63	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	31	16	24	
8	74	48	61	64	53	59	59	55	57	1249	7	↓	0	3	3	2	37	21	29		
9	61	38	50															100	37	69	
10	56	31	44															100	37	69	
11	57	38	48															100	45	73	
12	58	34	46															71	30	51	
13	57	31	44															100	30	65	
14	36	26	31	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	100	100	
15	38	23	31	64	49	56	59	48	53	674	4	1.10	10	10	4	4	100	55	78		
16	56	26	41															100	50	75	
17	45	35	40															100	49	75	
18	36	28	32															100	100	100	
19	39	27	33															100	54	77	
20	58	37	48															71	22	47	
21	59	40	50	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	41	17	29	
22	66	45	56	45	39	42	48	42	45	696	4	1.30	0	15	14	13	31	15	23		
23	69	43	58															60	10	35	
24	70	43	57															44	15	30	
25	57	33	45															60	32	46	
26	66	41	54															41	22	32	
27	62	35	49															87	27	54	
28	51	31	41															100	37	69	
29	41	20	31															100	36	68	
30	45	18	32															49	14	32	
31	50	34	42	50	38	44	48	42	45	1355	6	↓	0	9	5	8	48	08	28		
Month Mean	78	18	48	64	38	50	59	42	50	3974	5	2.43						100	08	50	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.						

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 at 5-7" = 4%

Data collected for Front Range Ecology Project  
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Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month November Year 1960

UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Average mph			0-2"	5-7"	11-13"	Max.	Min.	Mean		
1	53	30	42																100	29	65
2	50	27	39																100	27	64
3	55	25	40																100	26	63
4	26	24	25	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	100	100
5	47	21	34	45	38	41	44	41	42	706	6	.07	T						100	69	85
6	48	27	38																80	35	58
7	56	35	46																71	17	44
8	36	16	26																100	54	77
9	26	13	20																100	54	77
10	47	26	37																62	12	37
11	59	33	46	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	25	12	19	
12	55	35	45	44	38	41	43	39	41	896	5	.46	T	12	8	4			55	15	35
13	55	31	43																47	17	32
14	54	31	43																49	11	30
15	35	25	30																80	31	56
16	47	26	37																51	23	37
17	49	31	40																40	26	32
18	59	36	48																28	08	18
19	44	24	34	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	16	58	
20	55	23	39	39	35	37	40	37	38	1774	9	.00	0						86	13	50
21	65	29	47																100	10	55
22	36	20	28																100	30	65
23	51	26	39																30	08	19
24	59	39	49																21	12	17
25	66	45	56																24	07	16
26	62	42	52																19	07	13
27	44	12	28																100	19	60
28	35	13	24																100	12	56
29	42	21	32	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	36	10	23	
30	47	30	39	42	33	37	40	36	38	1638	7	.24	0	46	11	N-D			46	33	40
31																					
Month	66	12	38	45	33	39	44	36	40	5014	7	.77							100	07	47
Month Mean	49	27	38	42	36	38	42	38	38										68	25	47
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.						

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
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Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month December Year 1960

UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Average mph			0-2"	5-7"	11-13"	Max.	Min.	Mean		
1	61	32	47																42	10	26
2	61	38	50																46	11	29
3	50	30	40																100	28	64
4	32	14	23																100	53	77
5	19	08	14																100	63	82
6	26	06	16																100	56	78
7	32	09	21																100	38	69
8	32	10	21																100	51	76
9	49	19	34	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	29	65	
10	42	22	32	35	33	34	36	35	36	961	4	1.60	12						100	57	79
11	49	23	36																98	28	63
12	49	21	35																57	22	40
13	51	27	39																40	17	29
14	58	22	40																100	13	57
15	32	14	23																100	11	56
16	45	20	33	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	58	06	32	
17	39	26	33	35	33	34	36	35	35	987	6	.00	9	29	7	4			82	43	63
18	47	29	38																85	39	62
19	45	22	34																100	29	65
20	37	15	26																100	23	62
21	33	15	24																100	35	68
22	43	15	29																100	28	64
23	47	33	40	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	53	25	39	
24	60	37	49	33	32	32	35	34	35	1841	11	.05	3						29	07	18
25	43	22	33																100	18	59
26	38	18	28																100	40	70
27	26	08	17																100	56	83
28	32	05	19																100	44	72
29	38	13	26																63	23	43
30	54	25	40	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	52	20	36	
31	45	22	34	33	32	32	35	33	34	1074	6	.25	4	20	12	10			58	14	36
Month	61	05	31	35	32	33	36	33	35	4863	7	1.90							100	06	57
Month Mean	42	20	32	34	32	32	35	34	34										83	31	47
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.						

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month January Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.
1	27	12	20												57	30	44
2	30	10	20												64	33	48
3	43	16	30												44	16	30
4	46	24	35												22	13	18
5	49	26	38												22	11	16
6	53	28	40												31	14	22
7	42	23	32	32	28	30	34	31	32	1247	7	.00		4	84	31	58
8	52	32	42												44	13	28
9	57	34	46												18	8	13
10	43	24	34												63	20	42
11	50	27	38												44	20	32
12	55	30	42												31	13	22
13	39	22	30												68	21	44
14	37	24	30	31	27	29	32	30	31	1263	8	.00	T	31	12	11	
15	48	30	39												60	48	54
16	47	33	40												62	40	51
17	54	31	42												52	19	36
18	41	10	26												24	14	19
19	38	7	22												100	16	58
20	38	11	24												100	28	64
21	50	25	38	32	26	29	32	30	31	1373	8	.45		4	100	24	62
22	50	33	42												27	13	20
23	63	30	46												20	14	17
24	31	12	22												36	8	22
25	35	5	20												100	32	66
26	10	-5	2												100	28	64
27	30	-5	12														
28	35	13	24														
29	47	23	35														
30	51	31	41														
31	60	34	47	31			32	31	32	1461	6	.60		3	18	6	5
Month	63	-5	32	32	26	30	34	30	32	5344	7	1.05			100	8	38
Month Mean	44	21		32	27		32	30							54	21	

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- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage:  
at 0-2" = 8%  
at 5-7" = 4%

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month February Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.
1	43	26	34												53	22	38
2	45	26	36												50	28	39
3	44	23	34												100	33	66
4	32	19	26	31	30	30	32	29	30	741	8	.00		2	100	78	89
5	35	12	24												100	34	67
6	39	12	26												82	25	54
7	38	13	26												92	40	66
8	44	14	29												90	18	54
9	47	25	36												66	32	49
10	55	36	46												52	32	42
11	62	40	51	32	29	30	32	31	32	1034	6	.25		2	44	20	32
12	56	30	43												66	13	40
13	42	22	32												76	42	59
14	50	28	39												54	27	40
15	58	28	43												46	16	31
16	55	31	43												100	19	60
17	31	13	22												100	100	100
18	21	10	16	32	31	32	32	31	32	937	6	.05		T	100	100	100
19	44	15	30												94	14	54
20	43	20	32												64	30	47
21	49	27	38												54	30	42
22	51	20	36												100	26	63
23	24	12	18												100	49	74
24	44	12	28												56	22	39
25	47	27	37												100	29	64
26	27	13	20												100	96	98
27	35	6	20												100	30	65
28	38	16	27	32	32	32	33	32	32	1712	7	1.05		10	82	27	54
29																	
30																	
31																	
Month	62	6	32	32	29	31	33	29	32	4424	7	1.35			100	14	58
Month Mean	43	21		32	31		32	31							79	37	

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- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage:  
at 0-2" = 8%  
at 11-13" = 4%

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month March Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	48	20	34														56	30	43
2	52	26	39														100	24	62
3	27	18	22														100	99	100
4	26	16	21	33	32	32	33	32	32	725	7	.85	7			100	94	97	
5	26	12	19														100	88	94
6	44	13	28														100	46	73
7	35	21	28														100	27	64
8	44	18	31														46	15	30
9	57	24	40														38	10	24
10	46	28	37														54	21	38
11	45	24	34	33	32	32	34	32	33	1107	7	.05	9			100	45	72	
12	38	22	30														70	22	46
13	54	28	41														43	12	28
14	56	35	46														48	17	32
15	57	35	46														65	18	42
16	45	30	38														100	62	81
17	35	27	31														100	98	99
18	30	23	26	41	32	36	36	33	34	1042	6	1.10	8	171	16	12	100	95	98
19	35	21	28														100	66	83
20	47	17	32														100	32	66
21	45	23	34														62	17	40
22	47	23	35														70	31	50
23	53	25	39														74	31	52
24	58	36	47														76	27	52
25	54	31	42	40	32	36	36	33	34	994	6	.65	0			99	22	60	
26	42	25	34														100	28	64
27	39	25	32														100	32	66
28	28	10	19														100	66	83
29	32	8	20														100	52	76
30	44	19	32														100	28	64
31	44	25	34	40	34	37	37	34	36	614	4	1.00	2	67	13	13	100	40	70
Month Mean	58	8	33	41	32	35	37	32	34	4482	6	3.65					100	10	63
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%
- ② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month April Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	40	28	34														100	32	66
2	53	34	44														100	31	66
3	62	31	46														100	17	58
4	51	19	35														100	21	60
5	36	16	26														100	36	68
6	23	16	20														100	90	95
7	29	17	23														100	86	93
8	32	16	24	43	34	38	42	34	38	1118	6	.70	8			100	53	76	
9	45	20	32														100	26	63
10	36	25	30														100	84	92
11	40	23	32														100	26	63
12	56	31	44														53	17	35
13	53	27	40														100	22	61
14	37	12	24														100	21	60
15	42	13	28	44	35	40	40	35	38	928	5	.60	6	27	12	12	99	28	64
16	43	19	31																
17	58	26	42																
18	69	39	54																
19	72	43	58																
20	55	36	46																
21	60	29	44																
22	67	30	48	52	38	45	47	37	42	1082	6	.00	0			75	9	42	
23	51	34	42														59	18	38
24	38	23	30														100	35	68
25	43	18	30														100	28	64
26	49	28	38														100	22	61
27	57	23	40														100	14	57
28	64	28	46														100	9	54
29	69	38	54														27	9	18
30	70	38	54	54	36	45	49	ND	ND	1283	7	.50	0	34	13	11	100	13	56
31																			
Month Mean	72	12	38	54	34	42	49	34	39	4411	6	1.80					100	8	59
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%
- ② Rim of gauge 40 inches above ground

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Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month May Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.											Mean
1	39	32	36												100	92	96		
2	72	33	52												100	8	54		
3	41	36	38												100	100	100		
4	43	33	38												100	84	92		
5	44	31	38												100	45	72		
6	54	30	42	56	40	48	ND	42	ND	542	4	.80	0		89	16	52		
7	53	34	44												100	39	70		
8	53	32	42												100	33	66		
9	71	37	54												50	10	30		
10	79	49	64												26	5	16		
11	79	56	68												10	2	6		
12	62	37	50												100	9	54		
13	37	29	33												100	98	99		
14	56	29	42	61	41	51	ND	43	ND	1219	6	2.15	4	68	16	15			
15	54	34	44												100	28	64		
16	55	34	44												100	48	74		
17	59	36	48												100	38	69		
18	64	35	50												100	40	70		
19	51	41	46												100	44	72		
20	57	42	50												100	92	96		
21	70	42	56	58	39	48		52	42	47	685	4	.75	0	100	70	85		
22	56	40	48												100	56	78		
23	61	40	50												100	58	79		
24	69	46	58												100	24	62		
25	52	41	46												100	72	86		
26	63	38	50												100	48	74		
27	78	49	64												52	10	31		
28	78	51	64												100	16	58		
29	67	49	58												100	56	78		
30	67	44	56												100	51	76		
31	69	51	60	65	49	57	58	49	54	1149	5	.85	0	36	16	12			
Month	79	29	49	65	39	51	58	42	ND	3595	5	4.55			100	2	67		
Month Mean	60	39		60	42		55	44							91	43			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4% at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month June Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.											Mean
1	62	47	54												100	66	83		
2	56	43	50												100	86	93		
3	52	38	45												100	78	89		
4	63	39	51												100	32	66		
5	67	43	55												100	28	64		
6	64	45	54												100	40	70		
7	72	46	59												100	24	62		
8	74	51	62												60	24	42		
9	80	51	66	66	49	58	59	50	54	959	5	1.27	0		52	23	38		
10	78	55	66												50	19	34		
11	78	55	66												48	21	34		
12	84	54	69												49	10	30		
13	71	47	59												100	26	63		
14	61	41	51												100	52	76		
15	44	38	41												100	100	100		
16	64	36	50												100	28	64		
17	75	46	60	71	49	60	62	52	57	1079	5	1.15	0		92	21	56		
18	80	53	66												52	20	36		
19	71	47	59												100	36	68		
20	73	46	60												100	24	62		
21	85	57	71												28	8	18		
22	74	51	62	73	ND	ND	64	57	60	722	6	.25	0		74	19	46		
23	74	50	62												82	29	56		
24	76	52	64												100	32	66		
25	74	51	62												100	36	68		
26	83	55	69												55	16	36		
27	86	57	72												71	20	46		
28	84	57	70												63	23	43		
29	87	61	74												44	23	34		
30	85	56	70	75	59	67	65	59	62	1247	6	.22	0	ND	9	9	40		
31																			
Month	87	36	61	75	49	62	65	50	58	4007	6	2.89			100	8	56		
Month Mean	73	49		71	52		62	54							79	33			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4% at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month July Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	81	54	68														100	25	62
2	82	50	66														100	18	59
3	87	60	74														38	15	26
4	84	54	69														100	27	64
5	81	56	68														90	30	60
6	81	53	67														81	28	54
7	78	53	66	76	61	68	68	61	64	1035	6	.09	0				100	44	72
8	74	49	62														100	42	71
9	75	47	61														100	20	60
10	75	51	63														78	21	50
11	67	45	56														100	48	74
12	65	44	54														100	36	68
13	69	45	57														100	35	68
14	70	46	58	76	58	67	67	59	63	581	3	.64	0				100	38	69
15	79	56	68														50	22	36
16	87	58	72														37	12	24
17	91	63	77														32	10	21
18	89	61	75														33	13	23
19	86	55	70														85	14	50
20	86	48	57														100	37	68
21	60	45	52	76	59	68	67	59	63	1367	8	.63	0				100	52	76
22	75	46	60														68	22	45
23	88	54	71														43	8	26
24	87	59	73														34	13	24
25	83	57	70														100	24	62
26	82	56	69														100	25	62
27	83	56	70														100	26	63
28	83	57	70														79	28	54
29	87	55	71														100	24	62
30	79	54	66														100	33	66
31	76	53	64	76	55	66	66	58	62	1682	7	.89	0	25	5	7	100	35	68
Month	91	44	66	76	55	67	68	58	63	4665	6	2.25					100	8	54
Month Mean	79	53		76	58		67	59									82	27	

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 8%  
at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U. S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month August Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	73	52	62														100	45	72
2	76	52	64														100	42	71
3	77	53	65														90	24	57
4	82	53	68	73	61	67	66	62	64	466	5	.60	0				69	14	42
5	88	57	72														42	12	27
6	91	59	75														39	14	26
7	88	56	72														100	25	62
8	76	54	65														100	34	67
9	85	55	70														100	17	58
10	77	53	65	80	63	72	70	62	66	893	6	.14	0	14	7	6	100	30	65
11	71	48	60														100	56	78
12	76	50	63														100	46	73
13	74	50	62														100	35	68
14	75	50	62														100	32	66
15	75	52	64														61	40	50
16	81	54	68														95	29	62
17	79	53	66	75	60	68	67	62	64	765	5	.33	0				100	36	68
18	78	53	66														100	35	68
19	75	52	64														100	30	65
20	87	56	72														83	9	46
21	79	53	66														100	26	63
22	77	48	62														100	27	64
23	84	54	69														65	16	40
24	84	56	70	77	61	69	68	62	65	927	6	.26	0	16	3	3	47	22	34
25	79	55	67														100	36	68
26	82	56	69														82	20	51
27	83	55	69														100	23	62
28	83	54	68														67	16	42
29	86	56	71														47	19	33
30	72	50	61														100	40	70
31	74	52	63	76	58	67	68	61	64	988	6	.74	0	20	7	8	76	26	51
Month	91	48	66	80	58	68	70	61	65	4039	5	2.07					100	9	57
Month Mean	80	53		76	61		68	62									86	28	

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 8%  
at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U. S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month September Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean
1	75	52	64													52	19	36
2	64	33	48													100	25	62
3	42	29	36													100	72	86
4	48	31	40													100	58	79
5	67	35	51													100	24	62
6	77	53	65													28	10	19
7	77	51	64													38	17	28
8	80	54	67	66	44	55	63	49	56	1228	6	1.46		0		40	18	29
9	74	51	62													68	32	50
10	69	45	57													80	24	52
11	66	38	52													100	34	67
12	63	37	50													100	33	66
13	36	31	34													100	99	100
14	45	31	38													100	58	79
15	78	36	57													84	16	50
16	78	54	66	69	48	58	61	53	57	850	4	.01		0	8	48	22	35
17	78	50	64													56	23	40
18	77	50	64													69	32	50
19	55	36	46													100	50	75
20	57	36	46													100	24	62
21	60	35	48													100	28	64
22	37	33	35													100	100	100
23	46	31	38	65	45	55	60	49	54	881	5	2.92		τ		100	96	98
24	39	29	34													100	47	74
25	65	29	47													73	6	40
26	59	39	49													94	17	56
27	47	32	40													100	63	82
28	74	35	54													81	8	44
29	59	32	46													100	30	65
30	58	26	42	54	42	48	52	46	49	993	6	.77		0	19	13	11	
31																		
Month	80	26	50	69	42	54	63	46	54	3952	5	5.16				100	6	60
Month Mean	62	38		64	45		59	49								83	37	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.			

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%
- ② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month October Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean
1	42	26	34													100	33	66
2	57	28	42													84	25	54
3	67	40	54													29	8	18
4	69	46	58													27	13	20
5	72	46	59													22	11	16
6	71	48	60													19	9	14
7	72	37	54	55	42	48	52	45	48	1036	6	.22		0		100	12	56
8	37	31	34													100	100	100
9	42	31	36													100	49	74
10	46	30	38													94	27	60
11	66	41	54													39	8	24
12	57	41	49													73	18	46
13	62	39	50													69	30	50
14	64	35	50	55	42	48	52	45	48	1077	6	.24		0	10	13	15	
15	74	46	60													50	17	34
16	75	49	62													31	16	24
17	73	39	56													87	16	52
18	52	28	40													100	37	68
19	68	29	48													100	19	60
20	64	46	55													35	19	27
21	70	43	56	57	44	50	52	47	50	965	6	.00		0		40	24	32
22	54	28	41													61	30	46
23	59	28	44													55	14	34
24	56	30	43													72	23	48
25	50	23	36													100	30	65
26	65	43	54													39	17	28
27	56	42	49													70	25	48
28	53	26	40													100	42	71
29	26	14	20													100	90	95
30	53	15	34													100	50	75
31	58	28	43	55	40	48	51	42	46	1607	7	1.10		10	7	5	3	
Month	75	14	47	57	40	49	52	42	48	4685	6	1.56				100	8	49
Month Mean	59	35		56	42		52	45								71	28	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.			

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%
- ② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month November Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	51	34	42														46	30	38	
2	35	17	26														100	35	68	
3	44	18	31														55	26	40	
4	37	19	28	41	37	39	43	39	41	1056	11		20	4			100	41	70	
5	34	16	25														100	36	68	
6	57	18	38														72	10	41	
7	39	24	32														97	26	82	
8	54	28	41														55	19	37	
9	57	34	46														50	16	33	
10	61	36	48														48	19	34	
11	50	30	40	42	36	39	41	38	40	836	5		.00	0			100	23	62	
12	30	19	24														100	97	98	
13	37	14	26														100	32	66	
14	51	15	33														82	12	47	
15	31	15	23														100	32	66	
16	17	13	15														100	100	100	
17	19	10	14														100	100	100	
18	38	13	26	41	37	39	40	37	38	526	3	1.50		12			100	43	72	
19	37	16	26														80	28	54	
20	44	13	28														100	31	66	
21	38	17	28														100	20	60	
22	42	19	30														48	13	30	
23	50	30	40														47	24	36	
24	55	36	46														39	14	26	
25	54	36	45	36	35	36	38	37	38	1160	7	.10		6			56	21	38	
26	50	27	38														100	46	73	
27	45	26	36														100	28	64	
28	49	28	38														100	27	64	
29	54	29	42														44	10	27	
30	50	35	42	35	34	34	38	36	37	688	6	.00		0	18	13	13	80	19	50
31																				
Month	61	10	33	42	34	37	43	36	39	4266	6	1.80					100	10	56	
Month Mean	44	23		39	36		40	37									80	33		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min Thermometers (Weather Bureau Type)							Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month December Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	45	31	38														45	18	32	
2	52	30	41														100	24	62	
3	45	27	36														100	20	60	
4	41	20	40														64	25	44	
5	42	28	35														100	44	72	
6	30	15	22														100	16	58	
7	38	8	23														100	23	62	
8	28	7	18														100	87	94	
9	7	-8	0	35	33	34	37	34	36	1599	7	.50		8			100	94	97	
10	3	-12	-4														100	54	77	
11	13	-12	0														77	40	58	
12	15	-5	5														66	25	46	
13	40	8	24														83	38	60	
14	34	11	22														70	30	50	
15	40	18	29														74	36	55	
16	39	19	29	33	32	32	35	32	34	503	3	.20		6			65	30	48	
17	39	19	29														97	25	61	
18	34	14	24														63	34	48	
19	41	16	28														100	26	63	
20	45	34	40														49	20	34	
21	44	20	32														45	20	32	
22	32	17	24														44	16	30	
23	47	25	36	32	31	32	34	32	33	2271	14	.10		3			53	12	32	
24	51	31	41														100	27	64	
25	54	34	44														55	28	42	
26	34	12	23														80	35	58	
27	28	6	17														100	21	60	
28	32	13	22														40	29	34	
29	42	28	35														55	28	42	
30	39	25	32														80	35	58	
31	39	19	29	32	28	30	33	30	32	1819	10	.00		T	51	13	12	85	34	60
Month	54	-12	26	35	28	33	37	30	33	6192	8	.80					100	12	55	
Month Mean	36	16		33	31		35	32									78	32		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min Thermometers (Weather Bureau Type)							Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado



Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month January Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	52	30	41																	
2	55	34	44																	
3	53	32	42																	
4	32	17	24																	
5	35	8	22																	
6	39	18	28	31	28	30	32	30	31	1101	8	.00	T				100	30	65	
7	29	17	23															100	50	75
8	18	-12	3															100	94	97
9	9	-18	-4															99		
10	16	-18	-1																	
11	44	8	26																	
12	51	24	38																	
13	26	2	14	31	29	30	32	30	31	853	5	1.30	7				100	10	47	
14	25	0	12															100	32	66
15	29	5	17															92	28	60
16	40	6	23															84	12	48
17	23	5	14															80	14	47
18	19	-5	7															100	58	79
19	25	-5	10															ND	ND	ND
20	38	-1	18	30	29	30	32	30	31	775	5	.40	8				100	54	77	
21	-1	-16	-8															100	85	92
22	27	-1	13															100	29	64
23	42	17	30															46	7	26
24	48	22	35															18	10	14
25	46	22	34															38	12	25
26	48	26	37															47	22	34
27	46	26	36															47	26	36
28	50	26	38															44	21	32
29	56	36	46															28	11	20
30	58	37	48															37	17	27
31	56	39	48	32	26	29	32	28	30	1731	7	.15	T				33	38	ND	
Month	58	-18	24	32	26	30	32	28	31	4460	6	1.85						100	7	48
Month Mean	37	12		31	28		32	30										73	27	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%

at 5-7" = 4%

Data collected for Front Range Ecology Project Supported by U. S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month February Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	57	32	44																	
2	61	41	51																	
3	63	42	52																	
4	51	16	34																	
5	17	11	14																	
6	48	13	30																	
7	44	33	38																	
8	43	32	38																	
9	52	33	42																	
10	63	40	52	32	31	32	32	31	32	1944	8	.00	0				63	20	42	
11	65	45	55															42	22	32
12	62	39	50															60	30	45
13	53	34	44															70	25	48
14	49	31	40															77	22	50
15	51	28	40															65	29	47
16	53	27	40															100	31	66
17	27	17	22															100	86	93
18	38	15	26															100	23	62
19	42	17	30															55	28	42
20	33	20	26	36	31	34	33	31	32	1495	6	.60	4				100	26	63	
21	27	11	19															100	55	78
22	43	11	27															100	22	61
23	25	-3	11															100	56	78
24	15	-10	2															100	52	76
25	22	-6	8															100	86	93
26	1	-16	-8															98	73	86
27	8	-17	-4															95	46	70
28	32	-11	10	32	32	32	33	32	32	574	3	.80	14				38	16	11	
29																				
30																				
31																				
Month	65	-17	30	36	31	32	33	31	32	4013	6	1.40						100	12	59
Month Mean	41	19		33	31		33	31										81	37	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%

at 5-7" = 4%

Data collected for Front Range Ecology Project Supported by U. S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month March Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	43	18	30																	
2	45	21	33																	
3	28	17	22																	
4	37	16	26																	
5	44	15	30																	
6	54	31	42																	
7	45	28	36																	
8	44	25	34																	
9	42	23	32																	
10	26	16	21	32	32	32	33	32	32	1595	7	.00	T					100	100	100
11	31	12	22																	
12	28	2	15																	
13	28	1	14																	
14	38	4	21																	
15	40	14	27																	
16	43	17	30																	
17	47	24	36	32	32	32	33	32	32	726	4	.20	0					100	23	62
18	47	28	38																	
19	50	28	39																	
20	45	28	36																	
21	45	27	36																	
22	47	22	34																	
23	42	24	33																	
24	45	22	34	38	32	35	35	32	34	1070	6	.20	0					100	28	64
25	59	28	44																	
26	59	37	48																	
27	64	39	52																	
28	62	20	41																	
29	25	15	20																	
30	36	13	24																	
31	35	17	26	46	34	40	41	33	37	928	6	.50	0	22	14	12		100	38	69
Month Mean	64	1	32	46	32	35	41	32	34	4319	6	.90						100	8	56
Key	43	20		37	32		36	32										84	28	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2"=8% at 11-13"=4% at 5-7"=4%

Data collected for Front Range Ecology Project Supported by U. S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month April Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	35	12	24																	
2	51	18	34																	
3	49	33	41																	
4	44	30	37																	
5	55	31	43																	
6	48	26	37	44	34	39	40	34	37	468	3	.60	0					100	23	62
7	44	24	34																	
8	40	23	32																	
9	48	25	36																	
10	39	28	34																	
11	52	25	38																	
12	58	22	40																	
13	65	38	52																	
14	67	45	56																	
15	74	46	60	51	36	44	ND	38	ND	1199	6	.75	0					32	22	27
16	62	42	52																	
17	65	36	50																	
18	70	44	57																	
19	81	47	64																	
20	76	51	64																	
21	58	32	45																	
22	54	33	44	58	44	51	51	44	48	946	5	.10	0					100	31	66
23	70	38	54																	
24	76	49	62																	
25	73	49	61																	
26	51	37	44																	
27	62	34	48																	
28	70	39	54																	
29	39	29	34																	
30	46	25	36	58	41	50	52	43	48	974	5	1.00	T	42	12	12		100	93	96
31																				
Month Mean	81	12	46	58	34	46	52	34	44	3587	5	2.45						100	9	55
Key	57	34		53	39		48	40										80	31	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2"=8% at 11-13"=4% at 5-7"=4%

Data collected for Front Range Ecology Project Supported by U. S. Atomic Energy Commission and University of Colorado

Day	Temp Air °F			Temp Soil °F			Wind		Precip. inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.											Mean
1	56	31	44												58	21	40		
2	63	38	50												40	20	30		
3	69	44	56												41	19	30		
4	70	49	60												40	23	32		
5	78	50	64	54	39	46	49	42	46	781	7	.00	0		39	18	28		
6	76	52	64												38	18	28		
7	74	51	62												37	15	26		
8	70	47	58												78	25	52		
9	81	53	67												33	13	23		
10	79	54	66												27	13	20		
11	81	54	68												35	14	24		
12	80	53	66	64	50	57	56	48	52	1408	9	.00	0		33	14	24		
13	68	47	58												29	17	23		
14	63	42	52												94	18	56		
15	67	34	50												81	20	50		
16	59	36	44												100	49	74		
17	61	36	48												100	25	62		
18	61	38	50												100	25	62		
19	73	43	58	64	48	56	57	50	54	1111	7	.45	0		42	22	32		
20	69	46	58												69	14	42		
21	61	42	52												72	23	48		
22	63	39	51												77	29	53		
23	65	39	52												100	36	68		
24	66	38	52												100	27	64		
25	56	43	50												100	35	68		
26	65	38	52	65	51	58	57	51	54	852	5	.28	0		100	31	66		
27	51	37	44												100	53	76		
28	57	35	46												100	37	68		
29	63	38	50												100	22	61		
30	70	43	56												57	20	38		
31	67	45	56	62*	46*	54*	55*	49*	52*	714*	5*	.99*	0	17*	11*	10*			
Month	81	31	55	65	39	54	57	42	51	4866	6	1.72			100	13	46		
Month Mean	67	43		62	47		55	48							68	24			

Data collected for Front Range Ecology Project  
 Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 0-2" = 6%      at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground  
 \* Data taken 1 June

Day	Temp Air °F			Temp Soil °F			Wind		Precip. inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.											Mean
1	58	43	50												100	57	79		
2	56	39	48												100	61	80		
3	66	40	53												100	38	69		
4	76	48	62												76	9	42		
5	64	42	53												100	40	70		
6	64	42	53												100	43	72		
7	50	38	44												100	100	100		
8	49	35	42												100	48	74		
9	70	41	56	66	46	56	58	50	54	774	4	1.47	0		53	20	36		
10	78	50	64												41	17	29		
11	78	50	64												91	22	56		
12	66	47	56												100	35	68		
13	75	47	61												100	37	68		
14	75	51	63												61	22	42		
15	68	50	59	67	51	59	59	53	56	814	6	.22	0	12	10	11			
16	65	44	54												62	29	46		
17	69	39	54												100	31	66		
18	74	48	61												85	23	54		
19	79	52	66												59	27	43		
20	76	47	62												61	31	46		
21	77	47	62												100	35	68		
22	76	52	64	72	50	61	64	54	59	904	5	.10	0		100	30	65		
23	83	55	69												72	22	47		
24	83	52	68												77	25	51		
25	71	52	62												98	53	76		
26	80	47	64												98	32	65		
27	87	57	72												58	20	39		
28	87	60	74												58	21	40		
29	80	54	67												100	41	70		
30	76	54	65	76	59	68	66	59	62	1122	6	.47	0	9	8	8			
31																			
Month	87	35	60	76	46	61	66	50	58	3614	5	2.26			100	9	60		
Month Mean	72	47		70	52		62	54							85	35			

Data collected for Front Range Ecology Project  
 Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 0-2" = 8%      at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground  
 \* Data taken 1 June

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month July Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	77	49	63													100	29	64	
2	85	55	70													55	17	36	
3	84	57	70													61	20	40	
4	79	55	67													100	41	70	
5	85	55	70													94	20	57	
6	92	59	76													48	15	32	
7	94	58	76	78	59	68	70	60	65	1172	7	.68	0			87	15	51	
8	77	52	64													100	37	68	
9	86	54	70													100	21	60	
10	88	60	74													41	21	31	
11	84	60	72													55	23	39	
12	83	57	70	79	64	72	69	64	66	672	6	.04	0	8	3	3	100	35	68
13	82	51	66													100	28	64	
14	78	49	64													100	21	60x	
15	74	43	58													100	43	72	
16	79	49	64													100	30	65	
17	87	56	72													74	20	47	
18	81	54	68													100	25	62	
19	87	58	72	75	62	68	67	62	64	1171	7	.13	0			62	21	42	
20	86	52	69													71	29	50	
21	92	58	75													40	16	28	
22	87	54	70													96	27	62	
23	69	49	59													100	77	88	
24	75	49	62													100	19	60	
25	78	49	64													59	23	41	
26	77	51	64	78	60	69	68	61	64	883	5	.98	0	9	2	1	100	39	70
27	84	53	68													100	16	58	
28	75	50	62													100	39	70	
29	79	49	64													100	21	60	
30	77	52	64													100	38	69	
31	74	47	60	76	60	68	68	62	65	570	5	.10	0			100	33	66	
Month	94	43	67	79	59	69	70	60	65	4468	6	1.93				100	15	56	
Month Mean	82	53		77	61		68	62								85	28		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④	Av. of Max. & Min.		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage: at 0-2"=8% at 11-13"=4%  
at 5-7"=4%

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month August Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	76	46	56													100	40	70	
2	89	54	72													100	11	56	
3	83	58	70													46	21	34	
4	89	55	72													48	15	32	
5	88	59	74													33	9	21	
6	90	58	74													34	9	22	
7	88	58	73	78	60	69	68	62	65	1164	7	.00	0			33	11	22	
8	90	62	76													33	15	24	
9	87	62	74													41	23	32	
10	91	57	74													43	19	31	
11	80	47	64													73	33	53	
12	84	54	69													68	33	50	
13	92	60	76													42	18	30	
14	98	65	82													33	11	22	
15	85	59	72	80	64	72	70	64	67	1435	8	.00	0	8	3	3	47	21	34
16	86	54	70													53	23	38	
17	94	63	78													57	22	40	
18	88	56	72													100	27	64	
19	84	53	68													100	17	58	
20	81	55	68													49	17	33	
21	82	57	70													54	17	36	
22	81	57	69	80	60	70	70	62	66	1237	7	.35	0			47	19	33	
23	73	44	58													100	29	64	
24	71	43	57													100	23	62	
25	89	53	71													27	7	17	
26	91	58	74													19	5	12	
27	87	58	72													36	11	24	
28	84	45	70													63	10	36	
29	77	47	62													62	13	38	
30	55	43	49													100	63	81	
31	64	36	50	76	55	66	68	59	64	1339	6	.25	0	12	3	3	100	35	68
Month	98	36	69	80	55	69	70	59	65	5175	7	.60				100	5	40	
Month Mean	84	54		79	60		69	62								59	20		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④	Av. of Max. & Min.		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage: at 0-2"=8% at 11-13"=4%  
at 5-7"=4%





Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month January Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	46	30	38															26	16	21
2	53	31	42															39	16	28
3	44	31	38															53	36	44
4	32	18	25															100	48	74
5	44	14	29	↓														100	34	67
6	39	20	30	32	30	31	34	32	33	736	5	.30		4				65	31	48
7	55	23	39															39	13	26
8	50	35	42															18	6	12
9	41	24	32															95	9	52
10	25	-19	3																	
11	-13	-29	-21	↓																
12	6	-29	-12	32	23	28	33	25	29	1213	9	.00		3				100	43	72
13	25	-7	9															58	30	44
14	30	9	20															44	24	34
15	37	15	26															52	25	38
16	29	12	20															100	43	72
17	29	17	23	↓														60	38	49
18	19	-21	-1	25	20	22	30	27	28	1126	8	.30		4				100	55	78
19	21	-24	-2															100	44	72
20	35	17	26															78	37	58
21	41	28	34															56	33	44
22	34	-14	10															100	46	73
23	27	-14	6															100	32	66
24	42	18	30	↓														59	21	40
25	28	3	16	27	22	24	28	26	27	1544	9	.40		5				100	59	80
26	9	-9	0															100	40	70
27	34	4	19															55	18	36
28	43	3	23															100	14	57
29	35	-2	16															100	52	76
30	45	25	35															100	45	72
31	50	39	44	29	25	27	29	27	28	1043	7	.40		T	8	5	4	97	42	70
Month	55	-29	21	32	20	26	34	25	29	5662	8	1.40						100	6	54
Month Mean	33	8		29	24		31	27										76	33	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month February Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	51	32	42															100	54	77
2	46	23	34															100	24	62
3	60	32	46															38	13	26
4	63	44	54															33	12	22
5	65	41	53															24	9	16
6	59	34	46															25	10	18
7	65	37	51															36	2	19
8	48	28	38															100	39	70
9	32	24	28	41	29	35	36	28	32	1814	8	.50		T				100	79	90
10	24	-1	12															100	75	88
11	14	-5	4															100	62	81
12	32	-5	14															89	16	52
13	43	15	29															30	10	22
14	42	22	32															33	10	22
15	29	23	26															100	33	66
16	40	14	27	36	32	34	35	33	34	707	4	.40		5				100	33	66
17	46	18	32															62	18	40
18	42	23	32															65	21	43
19	40	24	32															63	34	48
20	48	22	35															100	40	70
21	39	17	28															100	37	68
22	42	20	31															84	28	56
23	44	24	34	33	32	32	33	33	33	1228	7	.10		0				78	34	56
24	50	27	38															100	17	58
25	42	22	32															100	16	58
26	56	35	46															51	10	30
27	43	24	34	↓														67	18	42
28	43	24	34	38	32	35	36	33	34	1408	12	.10		0	18	7	5	41	20	30
29																				
30																				
31																				
Month	65	-5	34	41	29	34	36	28	33	5157	8	1.10						100	2	50
Month Mean	45	23		37	31		35	32										72	28	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month March Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity						
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean		
1	45	19	32													100	26	63		
2	39	18	28													100	19	60		
3	23	13	18													100	86	93		
4	18	3	10																	
5	42	3	22																	
6	37	11	24																	
7	37	14	25																	
8	36	16	26																	
9	50	26	38	38	33	36	36	33	34	1143	5	.90	4		100	14	57			
10	49	26	38												87	20	54			
11	40	24	32												100	30	65			
12	27	16	22												100	80	90			
13	36	12	24												100	30	65			
14	50	14	32												67	12	40			
15	50	25	38												100	16	58			
16	39	23	31	34	33	33	34	34	34	1081	6	1.30	8		57	21	39			
17	40	14	27												94	42	68			
18	35	25	30												100	44	72			
19	48	26	37												57	19	38			
20	50	28	39												70	22	46			
21	55	27	41												74	22	48			
22	60	35	48												43	15	29			
23	62	42	52	40	34	37	36	33	34	1005	6	.10	0		40	15	28			
24	55	33	44												42	20	31			
25	55	29	42												54	15	34			
26	63	29	46												29	12	20			
27	65	41	54												24	11	18			
28	69	36	52												100	21	60			
29	60	32	46												65	19	42			
30	65	38	52												42	18	30			
31	66	39	52	50	36	43	44	36	40	1562	8	.10	0	14	12	12	45	17	31	
Month Mean	69	3	36	50	33	37	44	33	36	4791	6	2.40						100	11	49
Month Mean	47	24		41	34		38	34							73	26				

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
at 5-7" = 4%

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month April Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity						
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean		
1	63	42	52												33	13	23			
2	50	21	36												100	23	62			
3	52	20	36												100	8	54			
4	56	23	40												62	11	36			
5	55	31	43												50	24	37			
6	63	35	49	51	39	45	45	41	43	929	7	.00	0		42	22	32			
7	64	41	52												98	27	62			
8	64	34	49												100	17	58			
9	54	33	44												100	49	74			
10	54	29	42												100	7	54			
11	56	26	41												100	8	54			
12	66	27	46	54	41	48	48	42	45	711	5	.20	0		97	8	52			
13	72	42	57												24	6	15			
14	72	41	56												26	12	19			
15	71	38	54												45	10	28			
16	52	31	42												49	23	36			
17	54	31	42												66	26	46			
18	39	25	32												71	29	50			
19	51	27	39	58	43	50	51	45	48	1365	8	.00	0		49	21	35			
20	58	30	44												100	19	60			
21	34	25	30												100	100	100			
22	45	23	34												100	13	56			
23	55	25	40												60	12	36			
24	55	28	42												81	9	45			
25	60	30	45	54	40	47	48	43	46	828	6	.10	0		47	12	30			
26	65	39	52												100	29	64			
27	49	33	41												90	15	52			
28	52	31	42												100	28	64			
29	55	34	44												100	26	63			
30	63	30	46	58	43	50	51	45	48	796	7	.10	0	10	8	9	100	20	60	
31																				
Month Mean	72	20	44	58	39	48	51	41	46	4629	7	.40			100	6	49			
Month Mean	57	31		55	41		49	43							76	21				

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
at 5-7" = 4%



Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month May Year 1963  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	68	40	54													100	13	56	
2	65	39	52													70	18	44	
3	76	43	60													40	8	24	
4	70	42	56													100	18	59	
5	74	39	56													100	16	58	
6	78	46	62													41	14	28	
7	78	55	66	64	48	56	56	47	52	1067	6	.00	0		26	14	20		
8	81	53	67													50	18	34	
9	74	46	60													80	15	48	
10	70	44	57													53	26	40	
11	80	49	64													35	12	24	
12	62	40	51	66	54	60	58	53	56	957	7	.00	0		40	10	25		
13	71	36	54													23	6	14	
14	69	49	59													100	9	54	
15	76	42	59													100	1	50	
16	65	41	53													100	33	66	
17	69	36	52													100	20	60	
18	66	37	52													100	33	66	
19	43	32	38	66	52	59	60	54	57	752	5	.28	0		100	100	100		
20	60	33	46													100	17	58	
21	52	33	42													87	41	64	
22	53	33	43													100	49	74	
23	71	39	55													100	17	58	
24	70	43	56													100	12	56	
25	72	47	60													54	11	32	
26	71	43	57													100	12	56	
27	69	40	54	67	47	57	58	51	55	874	5	.50	0		100	19	60		
28	68	42	55													100	28	64	
29	74	45	60													100	15	58	
30	75	45	60													100	20	60	
31	71	42	56	70	55	62	60	56	58	565	6	.12	0	10	3	4	100	20	60
Month Mean	81	32	55	70	47	59	60	47	55	4215	6	.90				100	1	51	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④	Av. of Max. & Min.		

Data collected for Front Range Ecology Project  
 Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 at 5-7" = 4%

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month June Year 1963  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	79	48	64													56	14	35	
2	60	46	53													100	50	75	
3	73	45	59													100	16	58	
4	80	47	64													57	6	32	
5	76	51	64													30	10	20	
6	76	46	61													72	16	44	
7	78	49	64	72	54	63	62	56	59	921	6	.08	0		40	20	30		
8	73	43	58													100	29	64	
9	63	40	52													100	21	60	
10	67	42	54													77	24	50	
11	78	47	62													57	6	32	
12	80	51	66													41	14	28	
13	84	55	70	73	52	62	64	54	59	874	6	1.30	0		34	12	23		
14	75	50	62													100	31	66	
15	59	46	52													100	95	98	
16	49	42	46													100	95	98	
17	65	39	52													100	37	68	
18	59	47	53													100	50	75	
19	73	46	60													80	21	50	
20	80	54	67	73	52	62	64	53	58	734	4	3.31	0	12	9	12	44	14	29
21	87	54	70													44	4	24	
22	80	59	70													44	10	27	
23	85	59	72													42	16	29	
24	89	56	72													35	11	23	
25	77	52	64													38	13	26	
26	86	52	69													46	15	30	
27	87	57	72	76	58	67	68	59	64	989	6	.00	0		48	23	36		
28	90	64	77													27	10	18	
29	93	61	77													22	5	14	
30	87	57	72	78	66	72	69	64	66	516	7	.00	0	16	6	7	27	12	20
31																			
Month Mean	93	39	63	78	52	65	69	53	61	4034	6	4.69				100	4	43	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④	Av. of Max. & Min.		

Data collected for Front Range Ecology Project  
 Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 at 5-7" = 4%

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month July Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"   5-7"   11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"			
1	76	58	67														84	17	50
2	86	56	71														83	18	50
3	87	58	72														51	23	37
4	84	58	71	78	66	72	70	65	68	455	5	.00	0				100	34	67
5	83	60	72														61	27	44
6	88	58	73														76	22	49
7	88	54	71														100	29	64
8	86	53	70														74	25	50
9	83	57	70														100	46	73
10	86	57	72														91	14	52
11	84	57	70	78	64	71	70	65	68	970	6	.55	0				100	21	60
12	86	59	72														50	14	32
13	79	57	68														68	33	50
14	85	57	71														42	12	27
15	86	58	72														39	18	28
16	88	57	72														86	16	51
17	84	57	70														70	24	47
18	94	62	78	78	64	71	70	65	68	1102	7	.05	0	1	4	3	35	11	23
19	84	61	72														68	32	50
20	91	58	74														81	30	56
21	94	59	76														73	24	48
22	90	61	76														88	36	62
23	89	56	72														100	34	67
24	84	59	72														100	35	68
25	94	63	78	80	64	72	72	66	69	1045	6	1.26	0				60	16	38
26	78	58	68														100	45	72
27	58	51	54														100	100	100
28	83	49	66														100	15	58
29	91	56	74														33	12	22
30	93	60	76														24	10	17
31	89	61	75	80	59	70	70	63	66	806	6	.13	0	9	4	4	26	17	22
Month	94	49	72	80	59	71	72	63	68	4378	6	1.99					100	10	50
Month Mean	86	58		79	63		70	65									73	26	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 8%  
at 5-7" = 4%  
at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month August Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"   5-7"   11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"			
1	92	62	77														44	18	31
2	80	53	66														100	36	68
3	73	53	63														100	52	76
4	79	52	66														100	38	69
5	74	52	63														100	47	74
6	71	53	62														100	52	76
7	73	55	64														100	58	79
8	84	54	69	80	60	70	72	62	67	1091	6	1.12	0				100	38	69
9	70	55	62														100	50	75
10	79	52	66														94	41	68
11	75	55	65														100	45	72
12	67	52	60														100	73	86
13	68	50	59														100	60	80
14	76	49	62														100	31	66
15	86	55	70	71	58	64	67	60	64	876	5	1.26	0	16	11	13	67	24	45
16	85	55	70														57	20	38
17	65	51	58														100	57	78
18	77	48	62														100	30	65
19	79	51	65														84	29	56
20	78	57	68														52	30	41
21	77	55	66														100	38	69
22	75	54	64														100	44	72
23	79	51	65														100	24	62
24	79	49	64														100	25	62
25	81	54	68														98	36	67
26	81	54	68														100	32	66
27	70	54	62														100	43	72
28	69	53	61														100	42	71
29	63	49	56														100	61	80
30	70	49	60														100	40	70
31	64	48	56	73	56	64	66	60	63	1117	5	1.03	0	20	7	3	100	60	80
Month	92	48	64	80	56	66	72	60	64	3958	5	3.66					100	18	67
Month Mean	76	53		74	58		68	61									93	41	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 8%  
at 5-7" = 4%  
at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month September Year 1963  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.
1	75	50	62											92	26	59
2	79	53	66											52	22	37
3	85	51	68											91	16	54
4	74	49	62											100	43	72
5	83	53	68											100	32	66
6	80	54	67	74	56	65	66	59	62	799	6	.00	0	100	35	68
7	64	53	58											100	79	90
8	76	48	62											100	43	72
9	73	52	62											100	39	70
10	80	52	66											95	24	60
11	78	58	68											52	26	39
12	74	51	62											100	43	72
13	82	55	68	76	56	66	66	58	62	1050	6	1.48	0	13	7	7
14	71	52	62											73	40	56
15	69	49	59											90	49	70
16	79	49	64											86	27	56
17	80	53	66											59	26	42
18	81	54	68											89	26	58
19	77	53	65											96	43	70
20	58	49	54	72	57	64	64	59	62	952	5	1.50	0	100	92	96
21	58	47	52											100	91	96
22	66	41	54											100	42	71
23	79	53	66											99	19	39
24	65	46	56											53	45	69
25	72	44	58											93	29	61
26	77	53	65											48	22	35
27	77	54	66											44	25	34
28	68	43	56											100	27	64
29	73	43	58											96	27	62
30	80	50	65	68	54	61	62	58	60	1225	5	.71	0	10	4	4
31																
Month	85	41	62	76	54	64	66	58	62	4026	6	3.69				
Month Mean	74	50		72	56		64	58						83	36	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.	

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 at 5-7" = 4%

Data collected for Front Range Ecology Project  
 Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month October Year 1963  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.
1	78	55	66											40	23	32
2	76	54	65											43	26	34
3	79	50	64											46	20	33
4	80	52	66											36	22	29
5	78	56	67	68	56	62	62	58	60	948	8	.00	0	32	15	24
6	79	54	66											36	16	26
7	76	52	64											41	22	32
8	75	50	62											43	20	32
9	76	52	64											41	22	32
10	77	48	62											50	17	34
11	65	43	54											71	47	59
12	70	46	58	67	55	61	62	57	60	1010	6	.00	0	62	39	50
13	63	46	54											58	38	48
14	69	41	55											56	22	39
15	63	44	54											52	32	42
16	67	42	54											62	33	48
17	72	42	57											68	22	45
18	73	49	61	62	51	56	59	54	56	731	5	.00	0	46	20	33
19	69	48	58											60	36	48
20	50	42	46											100	58	79
21	66	41	54											100	18	59
22	68	45	56											38	14	26
23	68	45	56											46	20	33
24	57	42	50											82	34	58
25	71	44	58	60	46	53	57	51	54	926	6	.49	0	36	18	27
26	56	35	46											100	32	66
27	51	30	40											100	48	74
28	55	26	40											100	25	62
29	64	47	56											38	26	32
30	58	34	46											80	32	56
31	40	22	31	58	44	51	54	49	52	593	4	.21		100	78	89
Month	80	22	56	68	44	57	62	49	56	4208	6	.70		100	14	45
Month Mean	67	44		63	50		59	54						60	29	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.	

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 at 5-7" = 4%

Data collected for Front Range Ecology Project  
 Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month November Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	45	20	32												100	31	66			
2	64	38	51												31	16	24			
3	48	30	39												77	29	53			
4	54	37	46												97	35	66			
5	53	34	44												100	30	65			
6	60	39	50												42	27	34			
7	60	28	44												100	27	64			
8	52	27	40	48	40	44	49	44	46	1174	6	.05	0		100	34	67			
9	60	41	50												72	39	56			
10	58	38	48												92	49	70			
11	47	28	38												100	66	83			
12	49	22	36												100	43	72			
13	56	27	42												100	25	62			
14	65	44	54												55	33	44			
15	63	44	54												45	29	37			
16	48	24	36	49	38	44	ND	42	ND	866	5	.00	0		100	39	70			
17	45	18	32												100	43	72			
18	52	27	40												50	19	34			
19	52	27	40												43	23	33			
20	55	30	42												39	79	29			
21	36	23	30												100	33	66			
22	43	19	31	45	ND	ND	45	39	42	672	4	.70	T		100	25	62			
23	55	32	44												47	23	35			
24	43	29	36												100	29	64			
25	40	25	32												100	37	68			
26	58	32	45												43	24	34			
27	64	39	52												44	22	33			
28	40	19	30												100	27	64			
29	53	33	43												29	21	25			
30	60	35	48	38	33	36	39	36	38	1289	7	.10	0	28	9	6	33	18	26	
31																				
Month	65	18	42	49	33	41	49	36	42	4001	6	.85			100	16	55			
Month Mean	53	30		45	37		44	40							75	35				
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%
- ④ at 11-13" = 4%

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month December Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	46	21	34												100	16	58		
2	51	20	36												100	29	64		
3	53	36	44												42	26	34		
4	53	31	42												54	36	45		
5	54	34	44												44	28	36		
6	56	25	40												100	27	64		
7	29	14	22	36	32	34	38	36	37	1316	8	.00	0		100	56	78		
8	36	13	24												77	40	58		
9	27	11	19												100	73	86		
10	11	-5	3												100	100	100		
11	19	-5	7												100	77	88		
12	27	2	14												100	57	78		
13	19	0	10												100	77	88		
14	40	6	23	34	26	30	36	ND	ND	668	4	.35	4		100	50	75		
15	40	18	29												100	63	82		
16	47	31	39												94	48	71		
17	42	9	26												100	68	84		
18	47	31	39												98	52	75		
19	46	31	38												74	51	62		
20	39	23	31	31	27	29	32	31	32	853	6	.05	2		100	66	83		
21	24	16	20												100	100	100		
22	36	12	24												100	53	76		
23	48	25	36												56	35	46		
24	56	36	46												49	22	36		
25	51	34	42												43	22	32		
26	41	23	32												68	29	46		
27	37	23	30												100	44	72		
28	39	23	31												100	53	76		
29	31	17	24												100	78	89		
30	42	21	32												80	34	57		
31	47	34	40	32	28	30	32	32	32	2277	9	.50	2	34	4	4	61	37	49
Month	56	-5	30	36	26	31	38	31	34	5114	7	.90			100	16	68		
Month Mean	40	20		33	28		34	33							85	50			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%
- ④ at 11-13" = 4%

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month January Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean
1	55	34	44													66	37	52
2	48	24	36													100	38	69
3	39	14	26	32	30	31	33	32	32	606	8	.40				100	40	70
4	44	22	33													60	16	38
5	31	15	23													81	42	62
6	39	18	28													71	45	58
7	40	13	26													100	33	66
8	22	5	14													100	64	82
9	33	5	19													68	37	52
10	33	9	21	32	24	28	31	29	30	1609	10	.00				100	38	69
11	21	-2	10													100	56	78
12	20	-4	8													100	79	90
13	39	2	20													98	20	59
14	41	16	28													44	24	34
15	32	12	22													100	44	72
16	46	26	36													70	35	52
17	44	30	37	29	25	27	30	28	29	1221	7	.10				100	36	68
18	39	23	31													100	62	81
19	33	19	26													100	77	88
20	51	32	42													94	32	63
21	50	31	40													79	35	57
22	36	26	31													100	62	81
23	28	17	22													100	36	68
24	24	12	18													68	40	54
25	39	22	30	32	22	27	32	27	30	2269	14	.00				70	51	60
26	49	21	35													100	43	72
27	45	18	32													100	34	67
28	51	27	39													52	18	35
29	46	22	34													45	18	32
30	50	26	38													62	17	40
31	37	25	31	32	24	28	31	28	30	1379	10	.50				55	36	46
Month	55	-4	28	32	22	28	33	27	30	7485	10	1.00				100	16	62
Month Mean	39	18		31	25		31	29								83	40	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.			

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4% at 5-7" = 4%

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month February Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean
1	46	26	36													100	22	61
2	26	14	20													100	74	87
3	28	9	18													100	89	94
4	47	19	33													100	50	75
5	45	17	31													100	35	68
6	27	12	20													100	36	68
7	37	12	24													74	41	58
8	36	21	28	30	25	28	31	29	30	1519	8	.30				67	41	54
9	40	27	34													87	52	70
10	51	32	42													90	46	68
11	50	28	39													100	34	67
12	28	12	20													100	100	100
13	40	12	26													100	35	68
14	24	7	16													100	100	100
15	33	4	18	32	26	29	32	29	30	1240	7	.85				100	38	69
16	37	15	26													76	45	60
17	35	17	26													100	50	75
18	34	15	24													100	46	73
19	32	15	24													100	65	82
20	27	7	17													100	70	85
21	35	10	22													100	42	71
22	26	11	18	32	24	28	32	28	30	1251	8	.05				100	68	84
23	33	5	19													100	45	72
24	43	19	31													100	30	65
25	19	0	10													100	100	100
26	35	0	18													100	37	68
27	28	9	18													84	43	64
28	50	15	32													59	20	40
29	45	27	36	30	27	28	30	29	30	ND	ND	.30				56	26	41
30																		
31																		
Month	51	0	25	32	24	28	32	28	30	4010	8	1.50				100	20	72
Month Mean	36	14		31	26		31	28								93	51	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.			

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4% at 5-7" = 4%

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month March Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity							
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean			
1	46	27	36													66	36	52			
2	42	19	30													100	59	80			
3	25	11	18													100	100	100			
4	32	12	22													100	50	75			
5	35	22	28													100	62	81			
6	27	7	17													100	76	88			
7	26	10	18	31	27	29	31	28	30	ND	ND	.70	9			100	100	100			
8	32	9	20													100	56	78			
9	43	9	26													94	40	67			
10	37	13	25													100	38	69			
11	45	14	30													66	36	51			
12	52	29	40													92	30	61			
13	37	18	28													100	58	79			
14	36	10	23	31	29	30	31	30	30	1043	6	.20	5			100	40	70			
15	42	25	34													77	50	64			
16	44	19	32													100	50	75			
17	52	32	42													73	35	54			
18	56	26	41													100	30	65			
19	32	15	24													100	73	86			
20	38	12	25	32	29	30	32	30	31	1120	8	.20	T			100	39	70			
21	52	24	38													61	25	43			
22	55	30	42													100	20	60			
23	30	10	20													100	54	77			
24	17	4	10													100	100	100			
25	37	0	18													100	44	72			
26	38	22	30													100	49	75			
27	36	14	25	33	31	32	34	31	32	955	6	.50	3			100	46	73			
28	47	10	28													100	27	64			
29	43	19	31													100	48	74			
30	55	34	44													54	36	45			
31	60	37	48	40	ND	ND	36	32	34	394	4	.15	0	20	6	6	44	14	29		
Month Mean	40	18	29	40	27	30	36	28	32	3512	6	1.75							91	49	70
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	B <sup>1</sup> Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydograph (Hair) ④	Av. of Max. & Min.						

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
② Rim of gauge 40 inches above ground      at 5-7" = 4%

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month April Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity							
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean			
1	58	31	44													100	36	68			
2	46	27	36													100	50	75			
3	27	15	21													100	100	100			
4	29	15	22													100	100	100			
5	47	18	32													100	36	68			
6	33	19	26													100	76	88			
7	34	16	25	42	33	38	38	34	36	711	4	1.55	11			100	76	88			
8	46	16	31													100	39	70			
9	52	26	39													78	32	55			
10	51	30	40													100	36	68			
11	58	34	46	42	32	37	36	33	34	527	6	.00	T			87	24	56			
12	39	26	32													100	40	70			
13	38	23	30													100	47	74			
14	57	32	44													89	24	56			
15	64	43	54													42	19	31			
16	70	45	58													34	15	24			
17	47	24	36													100	26	63			
18	59	27	43	52	35	44	44	35	40	1433	9	.10	0			100	39	70			
19	51	33	42													100	79	90			
20	44	34	39													100	48	74			
21	59	35	47													70	18	44			
22	48	34	41													68	23	46			
23	68	34	51													43	11	27			
24	68	37	52													64	14	39			
25	47	28	38	54	38	46	48	40	44	1063	6	.00	0			78	27	52			
26	51	27	39													60	38	49			
27	46	30	38													66	36	51			
28	62	33	48													72	29	50			
29	62	33	48													100	36	68			
30	62	30	46	58	41	50	50	43	46	933	8	.10	0	10	10	11	100	41	70		
31	70	15	40	58	32	43	50	33	40	4667	7	1.75							100	11	63
Month Mean	51	28	39	50	36	43	43	37	40							85	40	63			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	B <sup>1</sup> Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydograph (Hair) ④	Av. of Max. & Min.						

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%  
② Rim of gauge 40 inches above ground

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month May Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	63	35	49															100	48	74
2	58	31	45															80	23	52
3	47	25	36															100	35	68
4	66	33	50															56	14	35
5	58	36	47															50	19	34
6	59	35	47															60	27	44
7	62	28	45	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	37	68
8	52	29	40	58	42	50	50	45	48	1817	9	.00	0					100	30	65
9	64	34	49															58	15	36
10	66	36	51															75	26	50
11	58	26	42															100	23	62
12	60	24	42															100	26	63
13	76	44	60															29	13	21
14	79	49	64															29	13	21
15	82	51	66	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		32	10	21
16	78	48	63	67	44	56	57	46	52	1205	6	.10	0					42	24	33
17	85	55	70															29	12	20
18	72	47	60															100	22	61
19	76	46	61															100	47	74
20	84	50	67	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		66	26	46
21	81	57	69															48	27	37
22	81	55	68	70	56	63	60	55	58	1016	7	.10	0					48	24	36
23	79	45	62															100	23	62
24	80	41	60															100	39	70
25	80	55	68															87	30	58
26	55	40	48															100	75	88
27	49	40	44															100	100	100
28	53	40	46															100	98	99
29	51	33	42															100	100	100
30	37	32	34	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	100	100
31	46	33	40	70	46	58	61	46	54	773	4	2.01	0	25	10	13		100	100	100
Month Mean	85	24	53	70	42	57	61	45	52	4811	6	2.21						100	10	58
Month Mean	66	40		66	47		57	48										77	39	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U. S. Army and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month June Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	42	35	38															100	100	100
2	50	35	42															100	85	92
3	61	44	52															100	42	71
4	62	41	52	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	62	91
5	68	42	55	58	44	51	54	46	50	524	5	.60	0					100	34	67
6	73	50	62															100	40	70
7	77	47	62															84	36	60
8	61	41	51															100	30	65
9	68	42	55															100	37	68
10	62	40	51	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	72	86
11	75	44	60	68	50	59	58	50	54	919	6	.09	0					100	14	57
12	72	45	58															100	29	64
13	66	45	56															100	52	76
14	62	42	52															100	74	87
15	78	46	62															90	30	60
16	82	56	69															57	13	35
17	80	49	64															56	23	40
18	66	46	56	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		62	26	44
19	74	43	58	72	52	62	64	54	59	1301	7	.22	0					100	30	65
20	69	45	57															100	50	75
21	56	44	50															100	52	76
22	62	41	52															80	37	58
23	73	41	57	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		70	20	45
24	80	48	64															50	23	36
25	83	55	69	71	49	60	62	52	57	848	6	.51	0					42	18	30
26	86	57	72															42	15	28
27	85	56	70															41	20	30
28	79	57	68															100	31	66
29	74	53	64															100	50	75
30	78	52	65	74	56	65	66	59	62	796	7	.28	0					100	44	72
31																				
Month Mean	86	35	58	74	44	59	66	46	56	4388	6	1.70						100	13	63
Month Mean	70	46		69	50		61	52										86	40	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
 at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U. S. Army and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month July Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	85	54	70																
2	90	55	72	72	56	64	64	58	61	313	6	.05	0				78	22	50
3	94	59	76														53	17	35
4	91	58	74														38	13	26
5	88	64	76														49	16	32
6	84	60	72														48	23	36
7	88	55	72														48	27	38
8	84	50	67														100	36	68
9	85	52	68	79	62	70	68	60	64	992	6	.01	0				100	30	65
10	82	55	68														100	33	66
11	73	50	62														100	47	74
12	71	51	61														100	48	74
13	82	49	66														100	49	74
14	86	57	72														100	24	62
15	86	58	72														61	24	42
16	85	60	72	76	60	68	69	62	66	896	5	.99	0				100	30	65
17	87	62	74														69	28	48
18	84	57	70														63	24	44
19	94	60	77														84	35	60
20	89	63	76														78	18	48
21	94	63	78														56	19	38
22	92	64	78														56	23	40
23	93	57	75	79	56	68	70	63	66	1188	7	.00	0				54	29	42
24	76	56	66														100	29	64
25	84	53	68														100	52	76
26	84	53	68														100	30	65
27	88	58	73														100	25	62
28	81	54	68														54	18	36
29	80	54	67														100	37	68
30	86	55	70														100	37	68
31	83	56	70	80	62	71	70	64	67	1171	6	1.00	0				100	30	65
Month Mean	94	49	71	80	56	68	70	58	65	4560	6	2.05					100	37	68
Key	86	56	71	77	59	68	68	61	68								80	30	65
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④			Av. of Max. & Min.		

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month August Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	86	60	73														97	27	62
2	82	58	70														100	33	66
3	79	57	68														100	42	71
4	79	55	67														100	41	70
5	87	56	72														80	29	54
6	81	55	68	75	61	68	68	63	66	940	7	.30	0				100	40	70
7	79	52	66														100	46	73
8	83	53	68														100	31	66
9	89	61	75														70	24	47
10	92	57	74														51	18	34
11	74	45	60														89	38	64
12	76	53	64														90	47	68
13	82	56	69	76	60	68	69	63	66	883	5	.15	0				80	46	63
14	81	57	69														100	36	68
15	85	59	72														57	21	39
16	79	50	64														100	31	66
17	79	49	64														100	30	65
18	87	52	70														69	23	46
19	79	57	68														71	35	53
20	68	40	54	72	58	65	68	62	65	1081	6	.19	0				100	22	61
21	68	42	55														63	30	46
22	72	42	57														82	32	57
23	85	44	64														70	19	44
24	84	46	65														100	18	59
25	83	41	62														100	18	59
26	85	56	70														100	19	60
27	84	47	56	72	58	65	66	62	64	1112	7	.24	0				100	21	60
28	82	47	64														75	12	44
29	68	46	57														100	17	58
30	77	42	60														62	29	46
31	86	54	70	72	57	64	65	61	63	873	9	.00	0				100	17	40
Month Mean	92	40	66	76	57	66	69	61	65	4889	7	.88					100	12	57
Key	80	51	66	73	59	67	67	62	68								86	29	61
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④			Av. of Max. & Min.		

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8% at 11-13" = 4%  
② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado



Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month September Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"   5-7"   11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	85	57	71																	
2	85	53	69																	
3	77	45	61																	
4	76	42	59	75	60	68	66	62	64	498	6	.00	0							
5	89	54	72																	
6	86	57	72																	
7	82	52	67																	
8	81	56	68																	
9	81	58	70																	
10	69	46	58																	
11	67	43	55	74	60	67	66	60	63	1015	6	.00	0							
12	66	42	54																	
13	85	50	68																	
14	71	47	59																	
15	56	43	50																	
16	66	40	53																	
17	77	45	61																	
18	77	45	61	71	53	62	65	58	62	782	5	.29	0							
19	45	35	40																	
20	60	32	46																	
21	58	43	50																	
22	74	43	58																	
23	63	36	50																	
24	68	37	52																	
25	77	52	64																	
26	61	33	47	67	47	57	61	53	57	923	5	.47	T							
27	60	29	44																	
28	76	45	60																	
29	71	48	60																	
30	78	52	65	63	45	54	56	46	51	544	6	.07	0							
31																				
Month	89	29	59	75	45	62	66	46	59	3762	5	.83								
Month Mean	72	45		70	53		63	56												
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%  
④ at 11-13" = 4%

Station No. A-1 Altitude 7,200 ft Exposure Ridgetop Month October Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"   5-7"   11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	79	32	56																	
2	72	28	50																	
3	77	37	57	63	48	56	57	53	55	457	7	.00	0							
4	56	30	43																	
5	60	28	44																	
6	67	36	52																	
7	77	41	59																	
8	65	34	50																	
9	71	48	60																	
10	70	40	55	62	46	54	57	51	54	866	5	.00	0							
11	52	35	44																	
12	60	34	47																	
13	66	38	52																	
14	73	40	56																	
15	75	48	62																	
16	73	49	61																	
17	49	29	39	60	44	52	56	49	52	959	6	.23	0							
18	44	21	32																	
19	55	22	38																	
20	70	41	56																	
21	71	43	57																	
22	46	27	36																	
23	47	23	35																	
24	56	29	42	56	39	48	52	46	49	782	4	.27	0							
25	62	34	48																	
26	65	38	52																	
27	64	39	52																	
28	69	39	54																	
29	73	47	60																	
30	63	36	50																	
31	57	35	46	55	42	48	50	46	48	1050	6	.07	0							
Month	79	21	50	63	39	52	57	46	52	4114	6	.57								
Month Mean	64	36		59	44		54	49												
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage: at 0-2" = 8% at 5-7" = 4%  
④ at 11-13" = 4%

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month November Year 1964  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	64	33	48													49	10	30	
2	58	35	46													100	13	56	
3	45	28	36													91	43	67	
4	60	25	42													95	8	52	
5	62	32	47													25	3	14	
6	58	37	48													34	13	24	
7	66	40	53	50	38	44	48	43	46	996	6	.00	0			26	10	18	
8	64	42	53													22	9	16	
9	60	40	50													24	14	19	
10	57	36	46													30	12	21	
11	41	26	34													52	28	40	
12	43	24	34													50	29	40	
13	49	29	39													100	21	60	
14	29	14	22	51	38	44	47	42	44	1425	8	.20	4			100	100	100	
15	18	11	14													100	100	100	
16	23	13	18													100	100	100	
17	24	16	20													100	100	100	
18	23	15	19													100	100	100	
19	35	11	23													100	24	62	
20	34	15	24													100	31	66	
21	41	11	26	40	36	38	42	38	40	488	3	1.10	5			100	25	62	
22	58	29	44													26	6	16	
23	44	26	35													50	21	36	
24	55	26	40													41	13	27	
25	48	25	36													100	32	65	
26	53	21	37													100	17	58	
27	35	23	29													100	36	68	
28	39	22	30													65	39	52	
29	38	18	28													100	47	74	
30	54	37	46	36	33	34	39	36	38	1874	9	.00	0			68	21	44	
31																			
Month	66	11	35	51	33	40	48	36	42	4783	7	1.30				100	3	53	
Month Mean	46	25		44	36		44	40								72	34		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8%      at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
 Supported by U. S. Army and University of Colorado

Station No. A-1 Altitude 7,200 ft. Exposure Ridgetop Month December Year 1964  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	47	31	39													100	28	64	
2	38	17	28													100	57	78	
3	34	17	26													100	64	82	
4	30	15	22													100	86	93	
5	35	15	25	35	31	33	35	34	34	600	5	.00	T			100	30	65	
6	33	9	21													100	41	70	
7	47	17	32													41	10	26	
8	53	27	40													24	8	16	
9	37	24	30													100	12	56	
10	39	21	30													100	23	62	
11	41	26	34													100	53	76	
12	28	9	18	32	28	30	35	32	34	1302	8	.10	0			98	36	67	
13	29	9	19													51	23	37	
14	45	22	34													63	9	36	
15	39	33	36													42	27	34	
16	35	-10	12													100	29	64	
17	21	-12	4													100	22	61	
18	47	17	32																
19	47	28	38	30	19	24	33	27	30	1764	11	.10	0			61	10	36	
20	45	28	35													64	37	50	
21	52	33	42													68	28	48	
22	56	43	50													70	48	59	
23	54	34	44													100	53	76	
24	41	32	36													100	49	74	
25	37	17	27													100	49	74	
26	43	21	32	32	25	28	32	28	30	2629	16	.90	T			100	36	68	
27	46	28	37													100	50	75	
28	43	21	32													100	45	72	
29	26	11	18													100	38	69	
30	37	12	24													56	13	34	
31	40	15	28	32	31	32	33	32	32	860	7	.00	3			67	25	46	
Month	56	-12	30	35	19	30	35	27	32	7155	10	1.10				100	8	59	
Month Mean	40	20		32	27		34	31								84	35		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 8%      at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
 Supported by U. S. Army and University of Colorado

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month January Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.		Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean									
1	32	12	22													100	44	72
2	12	-16	-02															
3	03	-20	-09															
4	23	-05	09															
5	41	15	28															
6	46	22	34															
7	40	16	28	↓	↓	↓	↓	↓	↓	↓	↓	↓					↓	
8	47	19	33	33	28	29	32	29	30	1811	9	.40	10			100	19	60
9	53	27	40													32	22	27
10	51	33	42													31	18	25
11	51	29	40													68	20	44
12	60	29	45													64	20	42
13	53	31	42													100	24	62
14	31	08	20													100	38	69
15	19	-01	09													100	46	73
16	34	16	25	↓	↓	↓	↓	↓	↓	↓	↓	↓				69	45	57
17	34	22	28	30	27	28	31	29	30	1336	6	.40	12			83	36	60
18	39	20	30													100	46	73
19	25	12	19													100	55	78
20	15	-05	05													100	65	83
21	16	-02	07													100	30	65
22	28	14	21													59	30	45
23	39	24	32													60	34	47
24	54	27	41	30	27	29	31	29	30	2437	15	.20	12			55	22	39
25	40	25	33													100	40	70
26	29	11	20													100	80	90
27	37	15	26													90	26	58
28	46	22	34													100	25	63
29	33	10	22													100	30	65
30	35	10	23													100	32	66
31	20	06	13	30	27	28	31	29	30	1168	7	.40	8	12	11	100	98	99
Month	60	-20	24	33	27	28	32	29	30	6752	9	1.40				100	18	61
Month Mean	35	14		30	27		31	29								84	38	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygrograph (Hair) ④	Av. of Max & Min			

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 5-7" = 4%  
at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month February Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.		Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.	Mean											
1	20	00	10													100	78	89		
2	39	00	20													N-D	N-D	N-D		
3	29	08	19													100	21	61		
4	20	04	12													100	78	89		
5	21	02	12													100	50	75		
6	45	15	30													N-D	27	N-D		
7	50	17	34	28	27	28	30	28	29	1286	8	.90	15			100	24	62		
8	43	20	32													56	20	38		
9	25	06	16													100	52	76		
10	31	06	19													68	32	50		
11	47	15	31													43	17	30		
12	44	21	33													52	24	38		
13	25	13	19													100	33	67		
14	38	11	25	31	26	29	30	28	29	1544	9	.00	8			40	17	29		
15	47	28	38													69	20	45		
16	43	30	37													77	36	57		
17	42	20	31													100	38	69		
18	42	13	28													100	33	67		
19	40	12	26													100	43	72		
20	44	12	28	↓	↓	↓	↓	↓	↓	↓	↓	↓				100	26	63		
21	44	21	33	30	26	28	30	28	29	1377	8	.10	8			96	32	64		
22	28	17	23													100	54	77		
23	39	20	30													100	34	67		
24	25	12	19													100	100	100		
25	34	11	23													100	35	68		
26	34	17	26													100	42	71		
27	37	15	26	↓	↓	↓	↓	↓	↓	↓	↓	↓				100	34	67		
28	40	15	28	29	28	29	30	28	29	1179	7	.30	12			N-D	N-D	76	29	53
29																				
30																				
31																				
Month	50	00	25	31	26	28	30	28	29	5386	8	1.30				100	17	63		
Month Mean	36	14		30	27		30	28								88	38			
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygrograph (Hair) ④	Av. of Max & Min					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 5-7" = 4%  
at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month March Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			Max.	Min.	Mean	Max.	Min.	Mean	
1	45	28	37															62	34	48
2	33	14	24															100	32	66
3	41	13	27															100	32	66
4	25	03	14															100	33	67
5	26	02	14															65	30	48
6	32	07	20															100	38	69
7	41	19	30	30	N-D	N-D	31	29	30	1858	11	30	12				100	30	65	
8	39	17	28															90	30	60
9	34	20	27															100	28	64
10	31	10	21															100	35	68
11	30	06	18															100	32	66
12	47	17	32															56	22	39
13	41	25	33															100	36	68
14	26	05	16	30	27	29	31	28	29	2236	13	.10	11				100	46	73	
15	30	01	16															97	30	66
16	43	13	28															61	31	46
17	51	24	38															60	26	43
18	51	30	41															72	28	50
19	41	20	31															100	54	77
20	24	09	17															100	97	99
21	56	10	33															100	12	56
22	49	30	40															38	12	25
23	49	30	40	33	29	31	32	29	31	1337	6	.90	6				44	27	36	
24	45	22	34															100	44	72
25	25	16	21															100	89	95
26	41	16	29															100	60	80
27	46	17	32															100	42	71
28	43	22	33															100	30	65
29	44	22	33															93	35	64
30	50	21	36															72	30	51
31	41	25	33	32	31	32	33	31	32	1007	5	1.80	20	10	6		100	36	68	
Month	51	01	28	33	27	30	33	28	30	6448	9	3.10					100	12	62	
Month Mean	39	17		31	29		32	29										87	37	

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 5-7" = 4%  
 ② Rim of gauge 40 inches above ground                              at 11-13" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month April Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			Max.	Min.	Mean	Max.	Min.	Mean	
1	50	28	39															67	36	52
2	51	26	39															100	34	67
3	56	22	39															100	18	59
4	61	41	51	32	31	32	33	32	33	1257	13	.00	16				44	20	32	
5	62	38	50															44	22	33
6	64	27	46															100	20	60
7	28	15	22															100	46	73
8	25	12	19															100	76	88
9	18	03	11															100	86	93
10	32	06	19															100	40	70
11	23	00	12							2786	16	1.80	36				100	52	76	
12	38	00	19															100	38	69
13	55	17	36															64	20	42
14	56	31	44															90	24	57
15	52	28	40															100	30	65
16	49	23	36															100	20	60
17	45	16	31															100	47	74
18	38	19	29	33	32	32	33	32	33	907	5	.20	8				100	82	91	
19	38	15	27															100	45	73
20	27	14	21															100	74	87
21	38	14	26															100	60	80
22	53	20	37															80	15	48
23	57	34	46															38	24	31
24	59	38	49															64	22	43
25	63	38	51	34	32	33	34	32	33	1324	8	.80	4				66	17	42	
26	56	38	47															66	36	51
27	45	33	39															100	32	66
28	47	32	40															83	42	63
29	59	33	46															75	24	50
30	72	41	57	47	33	40	42	33	37	1372	12	.10	0	13	11		53	18	36	
31																				
Month	72	00	35	47	31	34	42	32	34	7646	11	2.90					100	15	61	
Month Mean	47	23		36	32		36	32										85	37	

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 5-7" = 4%  
 ② Rim of gauge 40 inches above ground                              at 11-13" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month May Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean												
1	72	47	60														53	25	39		
2	71	47	59														50	22	36		
3	58	36	47														100	40	70		
4	48	30	39														100	80	90		
5	50	28	39														100	24	62		
6	52	28	40														100	36	68		
7	31	26	29														100	100	100		
8	49	29	39														100	56	78		
9	58	36	47	57	38	48	49	39	44	1183	5	.70	0				73	26	50		
10	53	30	42														84	29	56		
11	68	40	54														49	20	35		
12	71	41	56														75	19	47		
13	54	30	42														100	55	78		
14	53	33	43														100	57	79		
15	46	38	42	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				100	100	100		
16	67	37	52	56	41	49	50	42	46	914	6	.10	0				100	14	57		
17	67	41	54														71	21	46		
18	58	38	48														100	44	72		
19	48	33	41														100	64	82		
20	42	28	35														100	100	100		
21	35	25	30														100	100	100		
22	43	27	35	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				100	72	86		
23	56	31	44	57	36	47	51	37	44	742	4	2.60	6				100	34	67		
24	66	43	55														81	24	53		
25	62	40	51														70	30	50		
26	58	38	48														90	32	61		
27	68	35	52														100	20	60		
28	62	35	49														100	44	72		
29	60	38	49														100	60	80		
30	65	39	52	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				100	16	58		
31	44	35	40	57	36	47	52	37	45	1137	6	.00	0	14	13		100	100	100		
Month	72	25	45	57	36	47	52	37	45	3976	5	3.40	0				100	14	68		
Month Mean	56	35	45	57	38	48	51	39	45								96	47	68		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygrograph (Hair) ④	Av. of Max & Min							

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%  
 at 11-13" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month June Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean												
1	57	34	46														100	55	78		
2	65	39	52														100	28	64		
3	70	44	57														62	16	39		
4	71	48	60														36	16	26		
5	75	48	62	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				42	16	29		
6	79	51	65	69	45	57	58	46	52	772	5	.08	0				48	22	35		
7	80	54	67														42	20	32		
8	73	52	63														100	32	66		
9	80	52	66														92	17	55		
10	83	54	69														45	16	31		
11	78	48	63														54	23	39		
12	80	50	65														82	32	57		
13	83	55	69														52	24	38		
14	76	53	65	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				100	40	70		
15	80	50	65	71	55	63	N-D	54	N-D	1193	5	.10	0				100	30	65		
16	75	51	63														89	36	63		
17	78	48	63														90	26	58		
18	80	52	66														85	21	53		
19	66	46	56														100	58	79		
20	71	48	60														100	36	68		
21	70	48	59														100	38	69		
22	67	43	55	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				100	46	73		
23	82	54	68	69	54	62	62	55	59	956	5	.97	0				54	22	38		
24	79	54	67														98	24	61		
25	79	47	63														100	26	63		
26	75	48	62														83	24	54		
27	70	40	55														100	32	66		
28	69	40	55														100	45	73		
29	47	41	44	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				100	100	100		
30	65	38	52	68	52	60	62	54	58	1282	8	1.36	0	N-D	N-D		100	24	62		
31																					
Month	83	34	61	71	45	60	62	46	56	4203	6	2.51	0				100	16	57		
Month Mean	73	48	58	69	51	61	61	52	56								82	32	63		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygrograph (Hair) ④	Av. of Max & Min							

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%  
 at 11-13" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month July Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Average Vel. mph			Max.	Min.	Mean	Max.	Min.	Mean	
1	68	35	52															100	41	71
2	78	51	65															46	14	30
3	77	49	63															70	24	47
4	72	45	59															78	28	53
5	74	48	61															58	38	48
6	81	52	67	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	42	15	29
7	82	55	69	72	51	61	65	54	59	1135	7	.02	0				47	28	38	
8	71	43	57															48	30	39
9	78	41	60															52	22	37
10	72	46	59															50	29	40
11	75	45	60															76	32	54
12	74	47	61															86	32	59
13	79	52	66	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	92	26	59
14	80	50	65	73	59	66	66	60	63	748	5	.00	0				86	32	59	
15	80	50	65															100	36	68
16	66	49	58															100	43	72
17	75	48	62															100	34	67
18	72	46	59															100	43	72
19	67	43	55															100	46	73
20	72	50	61	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	91	31	61
21	79	49	64	69	54	62	64	56	60	743	4	.60	0				61	30	46	
22	79	53	66															100	26	63
23	82	55	69															52	25	39
24	84	56	70															46	22	34
25	83	49	66															100	29	65
26	74	49	62															100	29	65
27	79	54	67															50	28	39
28	85	58	72															83	15	49
29	69	49	59															100	36	68
30	80	51	66	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	65	26	46
31	79	54	67	72	54	63	66	56	61	1199	5	.42	0	4	3		100	36	68	
Month	85	35	63	73	51	63	66	54	61	3825	5	1.04					100	14	53	
Month Mean	76	49		71	55		65	56									77	30		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ④	Av. of Max & Min					

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage:  
at 5-7" = 4%  
at 11-13" = 4%

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month August Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Average Vel. mph			Max.	Min.	Mean	Max.	Min.	Mean	
1	77	51	64															100	39	70
2	79	55	67															82	32	57
3	69	54	62															86	37	62
4	75	50	63															100	34	67
5	78	48	63															100	34	67
6	55	44	50															100	47	74
7	69	43	56	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	32	66
8	78	50	64															49	15	32
9	82	54	68															40	16	28
10	79	53	66															40	16	28
11	87	56	72															34	13	24
12	72	51	62	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	32	66
13	76	47	62	71	54	62	66	56	61	876	6	.24	0				100	27	64	
14	50	43	47															100	100	100
15	69	39	54															100	28	64
16	79	49	64															47	13	30
17	87	55	71															26	10	18
18	82	58	70															34	14	24
19	72	48	60															100	34	67
20	73	49	61	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	32	66
21	72	51	62															94	32	63
22	74	52	63															57	28	43
23	73	49	61	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	63	25	44
24	77	51	64	67	55	61	62	57	60	426	4	.85	0				91	32	62	
25	68	47	58															100	56	78
26	72	47	60															100	25	63
27	78	50	64															56	23	40
28	79	53	66															42	19	31
29	79	52	66															35	19	27
30	73	49	61	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	53	26	40
31	80	48	64	71	56	63	66	58	62	1061	6	.07	0	5	8		47	13	30	
Month	87	39	62	72	53	62	66	56	61	3826	5	2.04					100	10	51	
Month Mean	75	50		69	54		64	57									73	29		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ④	Av. of Max & Min					

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage:  
at 5-7" = 4%  
at 11-13" = 4%

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month September Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip Inches Water	Snow, In. Total Depth	Soil Moisture			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			% Dry Wt. 5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean										
1	71	45	58												56	20	38		
2	65	35	50												100	33	67		
3	75	41	58												63	18	41		
4	83	54	69												30	16	23		
5	74	53	64												28	19	24		
6	86	57	72	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	28	17	23			
7	85	54	70	72	55	64	64	58	61	979	6	.00	0		38	19	29		
8	81	58	70												33	15	24		
9	63	35	49												100	30	65		
10	81	41	61												67	18	43		
11	81	53	67												38	19	29		
12	79	50	65												40	20	30		
13	73	46	60	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	45	28	37			
14	79	50	65	73	56	64	N-D	59	N-D	767	5	.00	0		48	26	37		
15	71	43	57												100	32	66		
16	55	37	46												100	54	77		
17	42	34	38												100	50	75		
18	59	37	48												N-D	N-D	N-D		
19	72	43	58	64	46	55	N-D	51	N-D	559	5	.39	0		N-D	N-D	N-D		
20	65	42	54												84	30	57		
21	70	41	56												74	25	50		
22	56	37	47												82	40	61		
23	52	34	43												100	57	79		
24	38	30	34												100	68	84		
25	50	30	40												100	32	66		
26	46	28	37	59	41	50	N-D	46	N-D	995	6	1.10	0		100	46	73		
27	41	29	35												100	70	85		
28	43	23	33												100	24	62		
29	31	18	25	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	74	87			
30	33	16	25	48	39	43	48	41	44	630	7	1.09	9	N-D	N-D	100	64	82	
31																			
Month	86	16	52	73	39	55	64	41	53	3930	6	2.25			100	15	54		
Month Mean	63	40		63	47		56	51							73	34			

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%  
 at 11-13" = 4%

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month October Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip Inches Water	Snow, In. Total Depth	Soil Moisture			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			% Dry Wt. 5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean										
1	31	18	25												100	88	94		
2	35	17	26												100	83	92		
3	38	16	27									↓	4		100	60	80		
4	52	25	29									.73			100	42	71		
5	57	30	44												98	32	65		
6	59	40	50												58	32	45		
7	49	26	38												100	49	75		
8	47	23	35												92	49	71		
9	51	32	42	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		84	48	66		
10	52	28	40	42	36	39	42	40	41	1208	5	.00	0		100	56	78		
11	59	27	43												100	39	70		
12	53	30	42												100	42	71		
13	54	25	40												100	34	67		
14	57	34	46																
15	62	31	47																
16	31	18	25	↓	↓	↓	↓	↓	↓	↓	↓	↓	2		N-D	N-D	N-D		
17	57	19	38	44	37	40	43	N-D	N-D	909	6	.65		13	12				
18	65	44	55												28	20	24		
19	62	40	51												45	25	35		
20	59	35	47												100	38	69		
21	59	36	48												52	32	42		
22	49	33	41												79	42	61		
23	47	30	39	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	48	74		
24	61	36	49	44	35	39	43	37	40	1268	8	.00	0						
25	64	26	45																
26	46	20	33																
27	61																		
28																			
29	↓	↓	↓																
30	N-D	N-D	N-D	45	36	40	43	36	39	976	6	1.10	7	15	14	N-D	N-D	N-D	
31	55	N-D	N-D																
Month	65	16	41	45	35	40	43	36	40	4361	6	2.48			100	20	66		
Month Mean	53	28		43	36		43	37							86	45			

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%  
 at 11-13" = 4%

Station No. 8-1 Altitude 8,500 ft. Exposure Ridgetop Month November Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"			Relative Humidity			
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			Max.	Min.	Mean	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	59	36	48															100	31	66
2	60	35	48															52	26	39
3	42	32	37															98	47	73
4	36	00	18															100	40	70
5	17	-04	07															100	44	72
6	38	14	26	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	54	34	44	
7	37	23	30	37	34	35	38	34	36	1337	8	.15	2				100	40	70	
8	46	26	36														67	35	51	
9	55	31	43														51	30	41	
10	50	18	34														100	36	68	
11	45	16	31														100	30	65	
12	45	-01	22														N-D	N-D	N-D	
13	15	-10	03	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	N-D	N-D	N-D	
14	46	14	30	35	32	33	36	32	34	1922	11	.05	4				22	13	18	
15	46	27	37														36	22	29	
16	34	04	19														100	36	68	
17	48	18	33														70	24	47	
18	56	39	48														27	19	23	
19	55	28	42														60	20	40	
20	50	25	38	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	52	30	46	
21	49	32	41	35	30	32	34	30	32	1452	9	.00	0				76	32	54	
22	36	20	28														100	50	75	
23	42	27	35														100	65	83	
24	42	32	37														83	42	63	
25	40	09	25														100	38	69	
26	18	03	11														100	71	86	
27	23	05	14														80	42	61	
28	42	20	31														56	38	47	
29	31	22	27	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	55	43	49	
30	41	22	32	32	30	31	33	30	31	3203	15	1.05	6	19	13		82	38	60	
31																				
Month	60	-10	30	37	30	33	38	30	33	7914	11	1.25					100	13	56	
Month Mean	42	19		34	31		35	31									76	36		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min					

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage:  
at 5-7" = 4%  
at 11-13" = 4%

Station No. 8-1 Altitude 8,500 ft. Exposure Ridgetop Month December Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"			Relative Humidity		
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			Max.	Min.	Mean	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	48	22	35														74	34	54
2	60	31	46														51	27	39
3	58	28	43														69	21	45
4	30	05	18	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	44	72
5	24	05	15	32	29	30	32	30	31	744	6	.00	4				66	44	55
6	45	23	34														52	38	45
7	49	20	35														66	27	47
8	43	14	29														100	30	65
9	47	27	37														49	29	39
10	38	26	32														100	49	75
11	42	22	32														100	34	67
12	43	21	32	30	26	28	31	27	29	1498	9	.00	1	14	12		62	26	44
13	44	15	31														100	30	65
14	30	13	22														100	45	73
15	49	22	36														56	28	42
16	48	20	34														100	44	72
17	40	17	29														100	38	69
18	48	18	33														82	30	56
19	40	25	33														100	42	71
20	46	22	34														49	30	40
21	41	23	32	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	50	28	39
22	30	17	24	31	24	27	29	23	26	751	3	.00	2				100	50	75
23	43	18	31														100	31	66
24	46	25	36														67	42	55
25	49	29	39														83	40	62
26	32	17	25														100	69	85
27	26	12	19														100	47	74
28	35	13	24														58	26	42
29	31	09	20														100	49	75
30	41	07	24	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	27	64
31	41	10	26	28	23	26	28	23	26	1071	5	.10	2				100	29	65
Month	60	05	30	32	23	28	32	23	28	4064	6	.10					100	21	59
Month Mean	42	19		30	25		30	26									82	36	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min				

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage:  
at 5-7" = 4%  
at 11-13" = 4%



Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month January Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	16	01	09												100	55	78			
2	13	-02	06												98	40	69			
3	16	-02	07												100	49	75			
4	30	02	16												93	23	58			
5	25	03	14												84	32	58			
6	34	15	25												90	42	66			
7	33	21	27												100	56	78			
8	44	30	37												63	27	45			
9	48	29	39	27	1	24	26	20	23	2063	9	.15	3		56	27	42			
10	48	26	37												54	22	38			
11	44	26	35												86	42	64			
12	42	24	33												98	57	78			
13	36	14	25												100	58	79			
14	28	10	19												100	74	87			
15	33	11	22												100	45	73			
16	18	03	11	27	24	26	27	23	25	800	5	.15	4		100	80	90			
17	12	-02	05												100	93	97			
18	12	-06	03												100	70	85			
19	14	-05	05												96	36	66			
20	21	06	14												86	47	67			
21	35	06	21												100	31	66			
22	43	18	31												87	24	56			
23	33	20	27	27	26	26	28	24	26	980	6	.00	6		68	38	53			
24	45	21	33												63	34	49			
25	48	28	38												78	33	56			
26	36	25	31												69	48	59			
27	41	20	31												100	41	71			
28	29	16	23												66	30	48			
29	56	21	38												30	11	21			
30	56	28	42												29	08	19			
31	32	20	26	33	26	29	28	25	26	1732	9	.35	4	N-D	29	28	100	30	65	
Month	56	-06	23							5575	8	.65						100	08	63
Month Mean	33	14		28	24		27	23							84	42				

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 0-2" = 4%      at 11-13" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month February Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	33	15	24												100	34	67			
2	35	21	28												100	44	72			
3	30	14	22												100	62	81			
4	34	12	23												100	38	69			
5	40	11	26												100	21	61			
6	36	20	28	28	28	28	29	25	27	806	6	.35	8		74	32	53			
7	46	23	35												71	38	55			
8	40	30	35												100	52	76			
9	31	19	25												100	34	67			
10	34	14	24												97	34	66			
11	29	11	20												100	54	77			
12	35	10	23												76	17	47			
13	39	19	29	30	27	29	29	26	27	1902	11	.30	4	17	14	N-D	100	26	63	
14	23	07	15												100	56	78			
15	26	09	18												100	42	71			
16	25	06	16												100	32	66			
17	22	01	12												86	29	58			
18	35	-01	17												77	20	49			
19	34	09	22												100	42	71			
20	23	06	15	29	29	28	29	26	28	1109	7	.60	12		100	60	80			
21	40	11	26												100	28	64			
22	14	-06	04												100	94	97			
23	12	-09	02												100	77	89			
24	15	-14	01												100	51	76			
25	18	-05	07												100	48	74			
26	04	-09	-03												100	82	91			
27	16	-01	08												100	74	87			
28	18	00	09												100	65	83			
29	21	-05	08	31	28	29	29	26	28	906	4	1.10	19		100	58	79			
30																				
31																				
Month	46	-14	18	31	27	28	29	25	27	4723	7	2.35						100	17	71
Month Mean	28	08		29	27		29	26							96	46				

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 0-2" = 4%      at 11-13" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month March Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	27	-04	12													100	60	80	
2	23	-09	07													100	43	72	
3	28	10	19													98	59	79	
4	37	24	31													100	57	79	
5	41	20	31													100	40	70	
6	42	27	35	30	28	29	29	26	28	1705	10	.35	19			100	38	69	
7	49	30	40													100	34	67	
8	38	27	33													100	29	65	
9	42	24	33													92	25	59	
10	33	13	23													100	28	64	
11	36	10	23													100	42	71	
12	36	10	23	32	29	30	31	26	28	1481	11	.15	12			100	41	71	
13	34	07	21													100	69	85	
14	42	12	27													100	32	66	
15	24	05	15													100	42	71	
16	24	06	15													76	28	52	
17	30	04	17													73	39	56	
18	40	22	31													71	38	55	
19	48	28	38	31	30	30	31	28	30	1502	9	1.15	16			70	34	52	
20	53	29	41													95	35	65	
21	56	32	44													82	22	52	
22	55	30	43													51	24	38	
23	54	28	41													100	28	64	
24	49	27	38													100	32	66	
25	56	31	44													47	22	35	
26	61	35	48	34	30	32	31	29	30	877	5	.00	6			48	18	33	
27	61	40	51													43	19	31	
28	52	27	40													100	34	67	
29	37	22	30													52	27	40	
30	54	28	41													40	20	30	
31	38	19	29	32	32	32	32	30	31	1266	11	.00	2	30	26	N-D	100	39	70
Month Mean	61	-09	31	34	28	31	32	26	29	6831	9	1.65				100	18	60	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4%  
at 5-7" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month April Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity						
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean		
1	32	16	24													99	37	68		
2	36	14	25													72	28	50		
3	50	28	39													93	33	63		
4	54	27	41													100	28	64		
5	59	39	48													42	22	32		
6	59	39	49													56	25	41		
7	41	29	35													100	41	71		
8	46	29	38													100	55	78		
9	63	34	49	35	31	33	33	30	31	1816	8	.45	T			58	20	39		
10	66	42	54													53	17	35		
11	54	34	44													51	36	44		
12	48	32	40													100	39	70		
13	50	26	38													100	33	67		
14	60	30	45													54	17	36		
15	51	33	42													74	28	51		
16	38	16	27	44	32	38	39	30	35	3039	18	.15	0	18	14	13	100	26	63	
17	44	12	28													58	22	40		
18	62	35	49													26	14	20		
19	68	30	49													100	12	56		
20	62	26	44													59	21	40		
21	70	43	57													35	11	23		
22	69	45	57													27	16	22		
23	62	42	52	52	33	42	48	33	40	1363	8	.05	0	15	14	13	67	23	45	
24	42	21	32													100	29	65		
25	43	18	31													58	20	39		
26	47	22	35													100	35	68		
27	35	22	29													100	80	90		
28	42	23	33													100	60	80		
29	27	14	21													100	91	96		
30	42	11	27	51	35	43	47	35	41	695	4	1.50	6	17	11	7	100	48	74	
31																				
Month Mean	70	11	39	52	31	39	48	30	37	6913	10	2.15				100	11	54		
Month Mean	51	28		45	33		42	32								76	32			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.						

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4%  
at 5-7" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month May Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.											Mean
1	49	23	36												77	24	51		
2	50	30	40												48	26	37		
3	56	30	43												100	28	64		
4	52	30	41												100	50	75		
5	32	23	28												100	96	98		
6	48	22	35												100	45	73		
7	55	33	44	44	34	39	41	34	38	811	5	2.55	7		100	32	66		
8	62	36	49												100	27	64		
9	56	35	46												100	46	73		
10	61	34	48												100	37	69		
11	63	32	48												100	30	65		
12	75	44	60												62	18	40		
13	74	42	58												44	14	29		
14	59	37	48	56	34	45	50	33	42	936	6	.00	0	18	17	16			
15	63	36	50												67	32	50		
16	56	36	46												100	36	68		
17	60	34	47												100	52	76		
18	57	26	42												100	44	72		
19	34	22	28												100	24	62		
20	49	22	36												100	78	89		
21	69	40	55	54	N-D	N-D	49	37	43	751	5	1.19	0		100	30	65		
22	70	46	58												31	17	24		
23	67	44	56												44	18	31		
24	60	36	48												44	21	33		
25	61	36	49												100	33	67		
26	64	36	50												34	15	25		
27	67	38	53												74	28	51		
28	58	37	48												100	27	64		
29	63	38	51												100	40	70		
30	72	46	59												100	36	68		
31	71	47	59	61	38	49	55	37	46	1309	6	.16	0		100	15	58		
Month	75	22	47	61	34	44	55	33	42	3807	5	4.00			100	14	58		
Month Mean	59	35		54	35		49	35							83	34			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%
- ② Rim of gauge 40 inches above ground                                      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month June Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.											Mean
1	69	46	58												58	27	43		
2	74	46	60												55	24	40		
3	78	50	64												40	14	27		
4	80	51	66												63	16	40		
5	54	45	50												100	79	90		
6	56	43	50												100	66	83		
7	68	42	55	69	51	60	62	49	55	750	4	.06	0		100	34	67		
8	60	43	52												100	54	77		
9	65	42	54												100	31	66		
10	54	39	47												100	74	87		
11	58	40	49												100	58	79		
12	57	36	47												100	29	65		
13	65	36	51												100	30	65		
14	75	50	63	63	46	55	58	48	53	779	5	.62	0	19	12	13			
15	62	45	54												100	29	65		
16	72	46	59												58	24	46		
17	82	51	67												100	18	59		
18	77	47	62												100	37	69		
19	82	45	64												100	14	57		
20	83	47	65												94	13	54		
21	68	43	56	72	50	61	64	50	57	1452	9	.06	0	8	11	N-D			
22	79	40	60												100	15	58		
23	57	35	46												100	55	78		
24	66	37	52												100	35	68		
25	77	48	63												76	19	48		
26	80	54	67												46	12	29		
27	79	48	64												30	07	19		
28	82	54	68												30	10	45		
29	83	51	67												100	13	57		
30	72	47	60	75	N-D	N-D	82	56	69	1309	6	.19	0	9	5	5			
31																			
Month	83	35	58	75	46	59	82	48	65	4290	6	.93			100	07	58		
Month Mean	71	45		70	49		66	51							86	30			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%
- ② Rim of gauge 40 inches above ground                                      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month July Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	87	48	68												100	07	54		
2	86	48	67												100	11	56		
3	62	44	53												100	50	75		
4	66	41	54												100	44	72		
5	52	43	48	↓		↓		↓							100	100	100		
6	57	40	49	76	53	64	68	55	62	585	4	.50	0	13	N-D	5	100	82	91
7	61	43	52												100	56	78		
8	72	46	59												73	24	49		
9	78	52	65												59	18	39		
10	82	55	69												67	19	43		
11	67	50	59												100	42	71		
12	66	47	57												100	49	75		
13	65	46	56	72	52	62	64	53	58	673	4	.70	0	11	38	5	100	60	80
14	77	45	61												100	37	69		
15	74	52	63												100	49	75		
16	81	54	68												70	41	56		
17	75	48	62												100	48	74		
18	73	47	60	↓		↓		↓							100	57	78		
19	78	50	64	69	53	61	63	54	59	713	5	.38	0	17	12	11			
20	84	54	69																
21	86	57	72																
22	82	57	70																
23	84	55	70																
24	77	51	64	↓		↓		↓											
25	78	54	66	↓		↓		↓											
26	87	59	73	74	56	65	67	57	62	734	4	.17	0	4	4	4			
27	86	58	72																
28	84	57	71																
29	79	51	65																
30	77	47	62	↓		↓		↓											
31	78	55	67	74	59	66	67	59	63	769	6	.30	0	5	7	4	N-D	N-D	N-D
Month	84	40	63	76	52	64	68	53	61	3474	5	2.05					100	07	68
Month Mean	76	50	63	73	55	66	66	56	61								93	44	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%
- ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month August Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	84	54	69																
2	85	57	71																
3	85	54	70																
4	87	57	72																
5	84	51	68																
6	84	55	70																
7	84	46	65																
8	63	44	54	↓		↓		↓											
9	48	39	44	77	58	67	68	58	63	1175	6	.44	0						
10	66	38	52																
11	70	50	60																
12	77	54	66																
13	74	52	63																
14	74	50	62																
15	85	55	70																
16	80	36	58	↓		↓		↓											
17	59	37	48	68	53	61	63	56	60	1144	6	.74	0	5	4	4			
18	70	39	55																
19	82	48	65																
20	79	54	67																
21	89	55	72																
22	88	52	70																
23	72	41	57	↓		↓		↓											
24	70	40	55	69	52	60	63	55	59	964	6	.57	0	17	15	17			
25	70	41	56																
26	76	42	59																
27	82	54	68																
28	66	39	53																
29	77	44	61																
30	82	53	68	↓		↓		↓											
31	85	54	70	72	53	63	65	56	61	1006	6	.00	0	6	4	4	N-D	N-D	N-D
Month	89	36	62	77	52	63	68	55	60	4289	6	1.75							
Month Mean	77	48	63	72	54	65	65	56	61										
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%
- ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month September Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	83	56	70																
2	83	52	68																
3	78	54	66																
4	84	58	71																
5	81	55	68																
6	78	51	65																
7	74	48	61	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇
8	61	40	51	74	56	65	67	58	63	884	5	.37	0	N-D	6	3			
9	48	38	43																
10	73	41	57																
11	64	44	54																
12	73	43	58																
13	73	45	59																
14	70	43	57																
15	60	40	50																
16	68	44	56																
17	59	41	50	65	48	56	61	51	56	1038	5	.47	0	7	4	4			
18	66	40	53																
19	71	45	58																
20	69	49	59																
21	60	35	48																
22	50	31	41																
23	58	32	45																
24	60	34	47	61	44	52	57	47	52	1074	6	.29	0	8	4	4			
25	73	45	59																
26	61	36	49																
27	68	36	52																
28	67	45	56																
29	60	34	47	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇
30	72	33	53	57	44	51	54	47	50	723	5	.03	0	5	4	4	N-D	N-D	N-D
31																			
Month	84	31	56	74	44	56	67	47	55	3719	5	1.16							
Month Mean	68	43		64	48		60	51											
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4% at 11-13" = 4%  
at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month October Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	71	44	58																
2	66	42	54																
3	69	43	56																
4	66	45	56																
5	67	44	56																
6	70	42	56																
7	73	44	59																
8	72	46	59	58	46	52	53	48	51	958	5	.00	0	4	3	4			
9	58	36	47																
10	57	33	45																
11	55	36	46																
12	56	32	44																
13	54	29	42																
14	33	22	28	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇
15	37	20	29	57	39	48	51	42	47	634	4	1.10	10	14	4	4			
16	57	23	40																
17	42	31	37																
18	32	24	28																
19	51	22	37																
20	53	32	43																
21	56	34	45	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇
22	59	38	49	40	36	38	42	38	40	757	5	.95	3	16	15	12			
23	63	40	52																
24	63	41	52																
25	52	27	40																
26	65	41	53																
27	57	30	44																
28	49	28	39																
29	33	14	24																
30	40	14	27	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇
31	44	29	37	40	35	37	40	36	38	1611	7	.05	T	15	14	13	N-D	N-D	N-D
Month	73	14	44	58	35	44	53	36	44	3960	5	2.10							
Month Mean	56	33		49	39		46	41											
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4% at 11-13" = 4%  
at 5-7" = 4%

Data collected for Front Range Ecology Project  
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Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month November Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	44	31	38															79	53	66
2	51	26	39															89	38	64
3	58	26	42															100	39	70
4	39	19	29															100	64	82
5	51	19	35	37	34	35	38	35	36	1079	9	.10	0				100	29	65	
6	43	24	34															100	46	73
7	48	29	39															100	26	63
8	30	09	20															100	61	81
9	37	06	22															100	40	70
10	42	22	32															54	20	37
11	53	28	41															36	14	25
12	50	31	41	35	33	34	36	34	35	958	6	.40	3	13	12	12	93	24	59	
13	48	29	39															60	26	43
14	51	25	38															61	16	39
15	28	16	22															100	45	73
16	40	18	29															74	28	51
17	40	26	33															53	33	43
18	52	27	40															42	12	27
19	34	19	27															100	27	64
20	53	18	36	38	29	34	35	32	33	2171	11	.00	T				100	06	53	
21	57	23	40															100	14	57
22	35	14	25															100	27	64
23	44	25	35															33	16	25
24	53	36	45															33	19	26
25	59	37	48															38	15	27
26	56	34	45															25	13	19
27	39	07	23															100	25	63
28	32	15	24															99	18	59
29	46	22	34															29	13	21
30	41	31	36	32	26	29	33	30	31	2064	8	.30	T	36	14	N-D	63	24	44	
31																				
Month	59	06	34	38	26	33	38	30	34	5272	9	.80					100	06	52	
Month Mean	45	23		35	30		35	33										75	28	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4% at 5-7" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month December Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	57	31	44															54	15	35
2	57	36	47															72	17	45
3	49	26	38															100	34	67
4	28	10	19															100	50	75
5	15	02	09															100	61	81
6	25	02	14															100	59	80
7	29	07	18															100	53	77
8	31	09	20															100	61	81
9	46	19	33															100	31	66
10	36	19	28	31	26	29	32	29	30	964	4	1.52	12				100	65	83	
11	46	20	33															100	31	66
12	45	18	32															65	20	43
13	47	24	36															33	18	26
14	53	18	36															100	09	55
15	31	10	21															100	14	57
16	38	19	29															59	09	34
17	33	20	27	31	28	30	32	30	31	856	5	.00	9	20	12	N-D	100	56	78	
18	36	25	31															100	52	76
19	39	17	28															100	39	70
20	30	16	23															84	35	60
21	28	14	21															100	45	73
22	31	18	25															100	48	74
23	39	27	33															78	30	54
24	55	31	43	30	23	27	31	30	31	2372	14	.10	8				31	10	21	
25	39	19	29															100	24	62
26	40	17	29															100	37	69
27	26	03	15															100	71	86
28	28	01	15															100	44	72
29	38	14	26															44	22	33
30	47	18	33															79	24	52
31	39	15	27	30	23	29	31	30	30	1442	9	.15	12	N-D	17	N-D	93	19	56	
Month	57	01	28	31	23	28	32	29	30	5634	8	1.77					100	09	60	
Month Mean	38	17		31	26		31	30										84	36	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4% at 5-7" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	21	8	14													90	42	66	
2	24	9	16													60	44	52	
3	40	11	26													48	20	34	
4	44	21	32													26	12	19	
5	48	21	34													26	14	20	
6	51	24	38													36	16	26	
7	43	21	32	30	23	26	31	25	28	988	6	.15	10			64	36	50	
8	46	33	40													38	20	29	
9	56	29	42													30	16	23	
10	40	21	30													100	30	65	
11	48	23	36													40	20	30	
12	51	28	40													42	16	29	
13	33	18	26													84	30	57	
14	32	18	25	29	23	26	28	25	26	1250	8	.00	T	17	14	13	94	68	81
15	47	25	36													98	52	75	
16	43	30	36													68	22	45	
17	50	29	40													26	20	23	
18	37	5	21													100	22	61	
19	33	4	18													100	28	64	
20	33	11	22													100	22	61	
21	42	19	30	28	23	26	29	26	28	1586	9	.50	9			28	18	23	
22	45	26	36													26	18	22	
23	58	27	42													38	10	24	
24	37	16	26													100	34	67	
25	36	2	19													100	36	68	
26	6	-9	-2													100	100	100	
27	15	-6	4													100	34	67	
28	29	8	24													68	36	52	
29	42	17	30													40	18	29	
30	47	27	37													74	26	50	
31	56	28	42	28	26	27	28	27	28	1673	7	.60	7	25	16	N-D	50	16	33
Month	58	-9	29	30	23	26	31	25	27	5497	7	1.25				100	10	47	
Month Mean	40	18.		29	24		29	26								64	29		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 4%  
 at 5-7" = 4%

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	39	24	32													74	28	51	
2	40	24	32													66	38	52	
3	43	19	31													100	42	71	
4	30	14	22	28	25	26	29	27	28	837	9	.05	6			100	56	78	
5	33	10	22													100	48	74	
6	35	10	22													100	30	65	
7	36	10	23													100	44	72	
8	43	12	28													100	20	60	
9	41	23	32													76	38	57	
10	52	29	40													74	44	59	
11	57	37	47	28	25	26	29	26	28	894	5	.30	6	39	18	N-D	58	26	42
12	51	23	37													100	20	60	
13	40	22	31													100	32	66	
14	44	25	34													54	32	43	
15	54	26	40													50	20	35	
16	51	27	39													100	27	64	
17	26	11	18													100	100	100	
18	28	8	18	30	26	28	30	28	29	1196	7	.05	6			100	48	74	
19	41	9	25													100	16	58	
20	41	15	28													88	38	63	
21	46	21	34													76	24	50	
22	44	17	30													100	26	63	
23	22	7	14													100	54	77	
24	34	7	20													66	30	48	
25	40	18	29													100	40	70	
26	20	6	13													100	90	95	
27	34	2	18													100	40	70	
28	33	12	22	29	25	27	30	27	28	1723	7	1.10	16			100	32	66	
29																			
30																			
31																			
Month	57	2	28	30	25	27	30	26	28	4650	7	1.50				100	16	64	
Month Mean	39	17		29	25		30	27								89	39		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month March Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity						
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2" 5-7" 11-13"			Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.					Mean	0-2"	5-7"				11-13"	
1	44	17	30												64	34	49			
2	48	22	35												100	29	64			
3	28	13	20												100	90	95			
4	28	11	20	30	26	28	33	28	30	919	10	.60		9	100	86	93			
5	23	10	16												100	52	76			
6	42	15	28												100	34	67			
7	29	14	22												100	34	67			
8	37	12	24												64	20	42			
9	53	20	36												44	14	29			
10	40	25	32												78	30	54			
11	44	23	34	30	27	28	30	28	29	1363	8	.10		12	100	52	76			
12	30	16	23												70	30	50			
13	49	26	38												60	17	38			
14	53	31	42												70	23	46			
15	53	31	42												100	25	62			
16	44	29	36												100	66	83			
17	35	24	30												100	88	94			
18	26	18	22	33	28	30	31	29	30	1254	7	1.10		18	100	92	96			
19	32	15	24												100	68	84			
20	42	15	28												100	39	70			
21	37	15	26												80	24	52			
22	45	21	33												96	24	60			
23	53	21	37												95	28	62			
24	55	32	44												100	28	64			
25	52	27	40	33	30	32	33	30	32	1076	6	.70		8	100	26	63			
26	38	19	28												100	30	65			
27	38	20	29												100	44	72			
28	23	5	14												100	80	90			
29	31	4	18												100	56	78			
30	40	18	29												100	34	67			
31	42	20	31	32	30	31	32	30	31	683	5	.45		12	43	26	N-D	100	49	74
Month	55	4	29	33	26	30	33	28	30	5295	7	2.95			100	14	67			
Month Mean	40	19		32	28		32	29							91	43				
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 4%  
 at 5-7" = 4%  
 at 11-13" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month April Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity						
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2" 5-7" 11-13"			Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.					Mean	0-2"	5-7"				11-13"	
1	37	24	30												100	38	69			
2	46	30	38												100	42	71			
3	55	26	40												100	28	64			
4	44	14	29												100	36	68			
5	34	10	22												100	48	74			
6	19	11	15												100	90	95			
7	27	13	20												100	74	87			
8	29	12	20	32	30	31	32	31	32	1458	8	1.05		13	100	50	75			
9	38	19	28												100	32	66			
10	33	20	26												100	84	92			
11	36	19	28												100	30	65			
12	53	25	39												70	24	47			
13	45	22	34												98	34	66			
14	32	9	20												100	24	62			
15	35	9	22	32	30	31	32	31	32	1341	8	1.00		14	27	37	N-D	96	36	66
16	37	23	30												100	48	74			
17	54	23	38												100	22	61			
18	59	36	48												44	18	31			
19	65	38	52												58	14	36			
20	49	30	40												100	24	62			
21	52	26	39												100	18	59			
22	61	29	45	32	30	31	33	31	32	1274	8	.00		T	100	12	56			
23	46	25	36												100	28	64			
24	31	18	24												100	48	74			
25	43	14	28												100	32	66			
26	40	22	31												100	32	66			
27	48	24	36												100	26	63			
28	53	24	38												100	18	59			
29	62	35	48												31	12	22			
30	61	35	48	47	32	40	42	32	37	1423	7	.65		0	18	15	N-D	100	18	59
31																				
Month	65	9	33	47	30	33	42	31	33	5496	8	2.70			100	12	64			
Month Mean	44	22		36	30		35	31							93	35				
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 4%  
 at 5-7" = 4%  
 at 11-13" = 4%



Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month May Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity								
	Max.	Min.	Mean	5-7 inches			11-13 inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean				
1	37	30	34													100	38	69				
2	66	34	50													100	11	56				
3	39	33	36													100	87	94				
4	39	30	34													100	82	91				
5	45	29	37													100	44	72				
6	51	26	38	50	35	42	44	37	40	700	5	.60				100	22	61				
7	43	29	36													100	44	72				
8	48	27	38													100	30	65				
9	66	34	50													54	16	35				
10	73	43	58													30	8	19				
11	74	52	63													16	5	10				
12	57	34	46													100	12	56				
13	34	25	30													100	100	100				
14	52	25	38	51	36	44	50	38	44	1435	7	2.45	7	32	17	16	100	30	65			
15	53	30	42													100	50	75				
16	54	31	42													100	34	67				
17	55	31	43													100	39	70				
18	66	34	50													100	16	58				
19	61	36	48													100	38	69				
20	54	38	46													100	72	86				
21	63	37	50	52	35	44	48	36	42	796	5	.40	0			100	25	62				
22	53	41	47														35					
23	63	37	50													100						
24	64	42	53													100	78	89				
25	45	36	40													100	54	77				
26	62	34	48													59	15	37				
27	72	45	58													100	20	60				
28	71	45	58													100						
29	64	44	54													100						
30	65	41	53													100						
31	66	44	55	60	41	50	54	43	48	764	3	.35	0	16	13	14	100	37	68			
Month Mean	74	25	46	60	35	45	54	36	44	3695	5	3.80								100	5	65
Month Mean	57	35		53	37		49	38								92	39					

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4% at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month June Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity								
	Max.	Min.	Mean	5-7 inches			11-13 inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean				
1	60	42	51													100	58	79				
2	55	39	47													100	78	89				
3	49	35	42													100	61	80				
4	60	36	48													100	32	66				
5	61	39	50													100	29	64				
6	59	42	50													100	44	72				
7	67	43	55													100	29	64				
8	71	46	58													73	30	52				
9	78	48	63	63	43	53	56	46	51	1199	6	1.07	0			64	20	42				
10	74	53	64													61	25	43				
11	75	52	64													67	28	48				
12	79	52	66													60	16	38				
13	69	44	56													100	35	68				
14	55	39	47													100	69	84				
15	41	36	38													100	100	100				
16	61	34	48													100	36	68				
17	71	44	58	66	45	56	59	48	54	911	5	.79	0			100	30	65				
18	75	50	62													72	25	48				
19	67	43	55													100	46	73				
20	70	43	56													100	33	66				
21	81	53	67													38	10	24				
22	70	45	58	69	52	60	62	52	57	612	5	.24	0			94	24	59				
23	77	49	63													100	31	66				
24	70	47	58													100	36	68				
25	70	50	60													69	38	54				
26	78	55	66													41	19	30				
27	80	51	66													100	20	60				
28	80	57	68													60	27	44				
29	84	56	70													43	24	34				
30	78	51	64	73	53	63	64	55	60	976	5	.27	0	N-D	12	13	77	31	54			
31																						
Month Mean	84	34	57	73	43	58	64	46	55	3698	5	2.37				100	10	60				
Month Mean	69	48		68	46		60	50								84	36					

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4% at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month July Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air. °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	74	48	61														100	35	68
2	77	45	61														100	18	59
3	79	57	68														38	18	28
4	79	49	64														100	29	64
5	76	53	64														86	36	61
6	76	50	63														86	30	58
7	74	49	62	72	56	64	66	58	62	791	5	.13	0			100	49	74	
8	71	47	59														100	46	73
9	73	45	59														100	25	62
10	74	47	60														100	19	60
11	57	40	48														100	72	86
12	61	39	50														100	48	74
13	64	41	52														100	38	69
14	69	44	56	71	54	62	65	56	60	616	4	.21	0			100	39	70	
15	74	51	62														100	30	65
16	78	51	64														48	23	36
17	84	56	70														48	14	31
18	79	57	68														54	20	37
19	78	52	65														90	20	55
20	64	43	54														100	46	73
21	51	42	46	71	53	62	64	55	60	1218	7	1.13	0			100	72	86	
22	71	43	57														74	23	48
23	80	52	66														47	15	31
24	82	58	70														47	17	32
25	79	52	66														100	30	65
26	79	52	66														100	32	66
27	78	54	65														100	34	67
28	76	54	65														100	34	67
29	80	51	66														100	30	65
30	76	50	63														100	35	68
31	70	50	60	69	50	60	64	53	58	1297	5	1.12	0	12	7	6	100	48	74
Month	84	39	61	72	50	61	66	53	60	3922	5	2.59					100	14	60
Month Mean	74	49		71	53		65	56									88	33	

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 4% at 11-13" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month August Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air. °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	68	47	58														100	61	80
2	66	48	57														100	62	81
3	70	49	60														100	32	66
4	78	50	64	70	55	62	64	57	60	331	4	.37	0			88	19	54	
5	80	53	66														45	17	31
6	85	57	71														45	20	32
7	82	50	66														100	36	68
8	72	49	60														100	41	70
9	76	51	64														100	22	61
10	73	48	60	74	57	66	68	59	64	713	5	.21	0	26	5	6	100	28	64
11	68	42	55														100	56	78
12	67	46	56														100	49	74
13	68	43	56														100	45	72
14	71	46	58														100	37	68
15	72	48	60														80	44	62
16	76	50	63														100	36	68
17	69	48	58	70	56	63	65	58	62	603	4	.20	0			100	46	73	
18	72	51	62														100	40	70
19	70	48	59														100	44	72
20	81	51	66														100	14	57
21	68	47	58														100	38	69
22	70	44	57														100	33	66
23	79	48	64														78	20	49
24	78	54	66	72	55	64	66	58	62	N-0	N-0	.40	0	5	5	6	59	24	42
25	73	49	61														100	42	71
26	73	50	62														100	28	64
27	77	50	64														100	32	66
28	77	52	64														72	22	47
29	77	55	66														54	30	42
30	65	45	55														100	52	76
31	70	47	58	72	53	62	65	56	60	633	5	.76	G	12	11	8	76	32	54
Month	85	42	61	74	53	63	68	56	62	2300	4	1.94					100	14	63
Month Mean	73	49		72	55		66	58									90	36	

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 4% at 11-13" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month September Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"					
1	72	48	60													62	24	43			
2	58	28	43													100	34	67			
3	39	24	32													100	60	80			
4	47	27	37													100	60	80			
5	58	32	45													100	29	64			
6	73	48	60													33	14	24			
7	73	47	60													46	19	32			
8	74	51	62	63	40	52	61	43	52	1243	6	1.01	T		48	24	36				
9	67	46	56													88	39	64			
10	61	40	50													100	34	67			
11	62	36	49													100	37	68			
12	63	31	47													100	24	62			
13	32	26	29													100	100	100			
14	41	26	34													100	30	65			
15	71	41	56													47	15	31			
16	72	48	60	62	44	53	58	47	52	710	4	.04	0	10	9	9	67	30	48		
17	72	47	60													70	31	50			
18	72	44	58													96	38	67			
19	55	30	42													100	34	67			
20	51	30	40													100	32	66			
21	53	29	41													100	42	71			
22	34	29	32													100	100	100			
23	46	27	36	58	40	49	55	43	49	807	5	2.54	3			100	46	73			
24	37	26	32													100	34	67			
25	61	28	44													42	9	26			
26	57	36	46													100	26	63			
27	46	26	36													100	37	68			
28	67	39	53													64	13	38			
29	51	25	38													100	34	67			
30	52	22	37	49	38	44	47	41	44	1035	6	.61	T		25	13	14	60	17	38	
31																					
Month	74	22	46	63	38	49	61	41	49	3795	5	4.20				100	9	60			
Month Mean	57	35		58	40		55	44								84	36				
Key	Thermograph (Bourdon Tube) ①			Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④			Av. of Max. & Min.	

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4%  
at 5-7" = 4%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month October Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"					
1	42	22	32													100	32	66			
2	56	22	39													96	28	62			
3	61	37	49													33	10	22			
4	64	40	52													31	17	24			
5	69	42	56													29	11	20			
6	66	44	55													27	16	22			
7	67	31	49	47	38	42	45	40	42	914	5	.42	0			100	17	58			
8	32	27	30													100	100	100			
9	47	28	38													100	41	76			
10	41	27	34													68	34	51			
11	63	33	48													60	10	35			
12	58	35	46													58	21	40			
13	58	35	46													100	38	69			
14	63	32	48	47	37	42	46	40	43	1003	6	.20	0	10	16	11	100	34	67		
15	70	43	56													64	23	44			
16	70	45	58													42	23	32			
17	69	35	52													100	25	62			
18	57	25	41													100	30	65			
19	65	26	46													100	21	60			
20	60	41	50													45	23	34			
21	66	40	53	45	38	42	44	40	42	704	4	.00	0			46	27	36			
22	47	27	37													86	36	61			
23	50	25	38													52	22	37			
24	50	30	40													73	32	52			
25	51	19	35													100	26	63			
26	61	38	50													46	22	34			
27	47	36	42													100	42	71			
28	48	23	36													100	38	69			
29	23	10	16													100	83	92			
30	53	20	36													100	40	70			
31	58	31	44	45	35	40	46	37	42	2065	9	1.10		11	17	13	13	93	24	58	
Month	70	10	44	47	35	42	46	37	42	4686	6	1.72				100	10	53			
Month Mean	56	31		46	37		45	39								76	31				
Key	Thermograph (Bourdon Tube) ①			Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④			Av. of Max. & Min.	

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4%  
at 5-7" = 4%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month November Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	47	28	38																	
2	30	11	20																	
3	37	12	24																	
4	34	14	24	36	34	35	37	36	36	1204	13	.10	7							
5	30	11	20																	
6	57	16	36																	
7	39	17	28																	
8	55	26	40																	
9	53	31	42																	
10	57	32	44																	
11	48	25	36	35	33	34	36	35	36	635	4	.00	4							
12	26	14	20																	
13	32	10	21																	
14	46	13	30																	
15	28	10	19																	
16	17	7	12																	
17	22	10	16																	
18	34	10	22	34	33	34	36	34	35	449	3	1.40	14							
19	34	10	22																	
20	44	9	26																	
21	32	11	22																	
22	34	12	23																	
23	47	27	37																	
24	51	30	40																	
25	48	30	39	34	32	33	35	33	34	1288	8	.20	8							
26	45	24	34																	
27	43	22	32																	
28	44	24	34																	
29	48	27	38																	
30	45	28	36	39	32	36	34	33	34	823	7	.00	6	17	12	13				
31																				
Month Mean	57	7	29	39	32	34	37	33	35	4399	6	1.70								
Month Mean	40	18		36	33		36	34												
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month December Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	42	28	35																	
2	48	29	38																	
3	38	22	30																	
4	35	14	24																	
5	36	22	29																	
6	27	10	18																	
7	34	8	21																	
8	24	-1	12																	
9	3	-14	-6	33	32	32	34	33	34	1806	8	.40	16							
10	10	-15	-2																	
11	11	-13	-1																	
12	13	-8	2																	
13	36	8	22																	
14	31	9	20																	
15	38	16	27																	
16	33	11	22	33	31	32	33	30	32	658	4	.10	12							
17	36	14	25																	
18	20	10	15																	
19	32	11	22																	
20	38	27	32																	
21	37	13	25																	
22	27	9	18																	
23	36	21	28	32	30	31	33	31	32	2617	15	.20	12							
24	48	25	36																	
25	50	28	39																	
26	30	6	18																	
27	18	6	12																	
28	26	11	18																	
29	35	23	29																	
30	32	19	26																	
31	36	15	26	32	28	30	32	30	31	2336	12	.05	6	35	17	N-D				
Month Mean	50	-15	21	33	28	31	34	30	32	7417	10	.75								
Month Mean	31	12		32	30		33	31												
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month January Year 1962  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"				
1	52	25	38												45	20	32			
2	53	29	41												32	16	24			
3	52	29	40												40	18	29			
4	29	14	22												100	39	70			
5	31	7	19												100	33	66			
6	34	17	26	30	28	29	31	30	30	942	7	.05	12		100	47	74			
7	33	14	24												100	49	74			
8	14	-10	2												100	89	94			
9	4	-19	-8												100	50	75			
10																				
11																				
12	47	-20	14												100	20	60			
13	21	2	12	30	28	29	30	29	30	845	5	1.30	21		100	58	79			
14	21	-5	8												100	34	67			
15	20	12	16												60	46	53			
16	35	6	20												74	19	46			
17	24	7	16												68	22	45			
18	30	9	20												100	50	75			
19	16	7	12												100	72	86			
20	32	0	16	31	29	30	31	29	30	1342	8	.40	16		100	70	85			
21	14	-15	0												100	71	86			
22	31	9	20												100	33	66			
23	37	15	26												48	16	32			
24	49	21	35												28	17	22			
25	49	22	36												52	18	35			
26	47	22	34												60	30	45			
27	41	23	32												64	41	52			
28	51	24	38												57	31	44			
29	55	31	43												40	23	32			
30	57	31	44												54	29	42			
31	53	33	43	32	27	30	31	28	30	1512	6	.10	30	ND	ND	ND	55	28	42	
Month	57	-20	22	32	27	29	31	28	30	4641	6	1.85			100	16	56			
Month Mean	33	11		31	28		31	29							75	38				
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
 Submitted by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month February Year 1962  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"				
1	55	26	40												53	29	41			
2	59	33	46												56	32	44			
3	60	36	48												57	30	44			
4	46	12	29												100	30	65			
5	35	4	20												100	21	60			
6	43	24	34												42	21	32			
7	38	28	33												98	42	70			
8	36	24	30												100	40	70			
9	42	26	34												100	43	72			
10	51	37	44	32	28	30	31	30	30	2126	9	.00	15		70	32	51			
11	58	40	49												51	30	40			
12	53	32	42												100	36	68			
13	46	22	34												100	27	64			
14	39	26	32												100	31	66			
15	43	24	34												86	38	62			
16	49	23	36												100	32	66			
17	25	15	20												100	70	85			
18	32	12	22												77	32	54			
19	42	11	26												64	26	45			
20	31	14	22	32	29	30	32	30	31	2051	8	.50	23		82	42	62			
21	32	10	21												100	34	67			
22	32	14	23												100	41	70			
23	17	-4	6												100	69	84			
24	35	-6	14												100	36	68			
25	17	-13	2												100	75	88			
26	1	-18	-8												100	76	88			
27	6	-24	-9												100	52	76			
28	25	-8	8	32	29	30	32	30	31	938	5	.50	22	58	13	14	80	26	53	
29																				
30																				
31																				
Month	60	-24	26	32	28	30	32	30	31	5125	8	1.00			100	21	63			
Month Mean	38	15		32	29		32	30							86	39				
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
 Submitted by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month March Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean										
1	36	12	24												55	24	40		
2	38	14	26												68	24	46		
3	21	8	14												100	30	55		
4	29	10	20												70	39	54		
5	48	18	33												45	18	32		
6	51	26	38												56	24	40		
7	41	22	32												100	40	70		
8	41	20	30												100	36	68		
9	38	17	28												100	38	69		
10	26	10	18	32	28	30	32	29	30	1896	8	.50	17		100	82	91		
11	21	6	14												100	33	66		
12	21	-5	8												100	38	69		
13	22	-3	10												100	30	65		
14	23	-1	11												100	21	60		
15	37	10	24												100	31	66		
16	42	12	27												100	19	60		
17	45	17	31	32	29	30	32	30	31	834	5	.30	18		100	30	65		
18	41	22	32												93	20	56		
19	48	24	36												72	26	49		
20	39	22	30												100	27	64		
21	40	20	30												100	34	67		
22	39	18	28												83	30	56		
23	40	19	30												100	42	71		
24	39	15	27	32	28	30	32	30	31	1088	7	.20	18		100	32	66		
25	53	28	40												50	24	37		
26	53	30	42												49	18	34		
27	56	36	46												38	20	29		
28	53	16	34												100	20	60		
29	26	10	18												100	70	85		
30	29	8	18												100	62	81		
31	39	13	26	32	29	30	32	30	31	1018	6	.40	2	24	34	23	100	36	68
Month	56	-5	27	32	28	30	32	29	31	4836	7	1.40			100	18	60		
Month Mean	38	15		32	28		32	30							86	33			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 4% at 5-7" = 4%
- ④

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month April Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean										
1	27	9	18												100	77	88		
2	52	24	38												82	22	52		
3	44	28	36												100	50	75		
4	39	25	32												100	73	86		
5	47	27	37												100	29	64		
6	45	22	34	32	30	31	32	30	31	443	3	.60	10		100	26	63		
7	37	21	29												100	50	75		
8	34	18	26												100	36	68		
9	45	21	33												100	32	66		
10	31	24	28												100	65	82		
11	44	22	33												100	24	62		
12	51	18	34												100	18	59		
13	56	34	45												41	16	28		
14	60	38	49												35	22	28		
15	66	43	54	39	30	34	32	31	32	1507	7	.60	0		34	16	25		
16	55	36	46												100	24	62		
17	59	33	46												91	30	60		
18	65	39	52												54	25	40		
19	71	43	57												40	15	28		
20	72	44	58												33	16	24		
21	51	27	39												100	26	63		
22	49	27	38	50	32	41	44	31	38	760	4	.30	0		100	40	70		
23	66	34	50												60	15	38		
24	69	41	55												32	11	22		
25	69	43	56												37	17	27		
26	47	32	40												100	37	68		
27	57	29	43												100	19	60		
28	67	34	50												100	14	57		
29	40	23	32												100	63	82		
30	44	19	32	52	35	44	47	36	42	888	5	1.20	3	27	16	14	100	34	67
31																			
Month	72	9	41	52	30	38	47	30	35	3598	5	2.70			100	11	56		
Month Mean	52	29		43	32		39	32							81	31			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%
- ④

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month May Year 1962

UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	50	22	36												60	19	40		
2	53	32	42												48	29	38		
3	61	37	49												56	27	42		
4	67	43	55												58	20	39		
5	66	44	55	50	33	42	45	35	40	710	6	.00	0		60	24	42		
6	70	45	58												55	26	40		
7	68	44	56												50	22	36		
8	65	42	54												80	31	56		
9	74	47	60												36	17	26		
10	74	49	62												32	17	24		
11	75	49	62												40	19	30		
12	79	46	62	58	42	50	53	43	48	1332	8	.00	0		42	17	30		
13	61	40	50												36	21	28		
14	56	34	45												81	25	53		
15	62	32	47												90	25	58		
16	45	31	38												100	60	80		
17	54	31	42												100	32	66		
18	52	32	42												100	36	68		
19	67	38	52	59	41	50	54	44	49	1066	6	.38	0		51	26	38		
20	65	40	52												76	16	46		
21	54	35	44												90	29	60		
22	53	32	42												73	38	56		
23	61	34	48												100	34	67		
24	62	35	48												100	30	65		
25	54	36	45												100	58	79		
26	58	33	46	61	45	53	55	45	50	920	6	.45	0		100	33	66		
27	47	32	40												100	74	87		
28	52	31	42												100	33	66		
29	52	33	42												100	36	68		
30	65	38	52												77	23	50		
31	59	40	50	56*	40*	48*	51*	43*	47*	693*	5*	1.14*	0	15	15	15	100	49	75
Month	79	22	49	61	33	49	55	35	47	4721	6	1.97			100	16	52		
Month Mean	61	37		57	40		52	42							74	31			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

\* Data taken on 1 June

③ Permanent wilting percentage:

at 0-2" = 4% at 11-13" = 4%

at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month June Year 1962

UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	53	37	45												100	66	83		
2	49	36	42												100	72	86		
3	64	36	50												100	34	67		
4	69	42	56												97	15	56		
5	60	36	48												100	43	72		
6	60	37	48												100	41	70		
7	43	34	38												100	94	97		
8	44	31	38												100	45	72		
9	67	36	52	61	41	51	56	43	50	736	4	1.30	0		58	25	42		
10	72	46	59												43	23	33		
11	70	44	57												100	26	63		
12	66	40	53												100	39	70		
13	71	43	57												93	36	64		
14	73	49	61												60	21	40		
15	65	44	54	62	46	54	57	47	52	596	4	.15	0	13	15	14	70	26	48
16	54	39	46												100	38	69		
17	61	34	48												83	32	58		
18	68	42	55												75	37	56		
19	73	46	60												86	30	58		
20	75	43	59												100	24	62		
21	72	43	58												100	32	66		
22	73	48	60	68	45	56	61	48	54	810	5	.11	0		100	33	66		
23	78	49	64												81	28	54		
24	77	49	63												81	25	53		
25	64	46	55												100	48	74		
26	74	43	58												100	30	65		
27	83	54	68												49	15	32		
28	78	53	66												62	22	42		
29	74	48	61												100	40	70		
30	71	48	60	74	54	64	70	55	62	918	5	.04	0	4	8	11	100	33	66
31																			
Month	83	31	55	74	41	56	70	43	54	3060	4	1.60			100	15	62		
Month Mean	67	43		66	47		60	48							88	36			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:

at 0-2" = 4% at 11-13" = 4%

at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month July Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	73	48	60															100	40	70
2	79	53	66															59	20	40
3	79	52	66															82	25	54
4	76	49	62															100	41	70
5	79	50	64															94	20	57
6	82	56	70															50	18	34
7	85	52	68	75	54	64	65	56	61	875	5	.95	0				100	22	61	
8	71	48	60															100	46	73
9	80	53	66															65	18	42
10	84	57	70															50	16	33
11	79	58	68															62	26	44
12	80	52	66	74	58	66	68	59	64	566	5	.23	0	8	5	10	100	28	64	
13	73	49	61															100	34	67
14	70	43	56															100	28	64
15	69	39	54															100	42	71
16	75	44	60															100	30	65
17	81	50	66															64	16	40
18	78	50	64															72	26	49
19	77	54	66	72	52	62	72	ND	ND	1054	6	.03	0				100	26	63	
20	84	53	68															50	24	37
21	84	56	70															37	16	26
22	80	49	64															100	28	64
23	65	46	56															100	68	84
24	71	46	58															94	26	60
25	72	47	60															66	31	48
26	73	49	61	73	55	64	66	57	62	701	4	.61	0	1	2	1	88	26	57	
27	77	49	63															100	23	62
28	76	47	62															100	19	60
29	75	47	61															83	16	50
30	73	47	60															100	42	71
31	74	45	60	72	55	64	66	58	62	506	4	.04	0				100	25	62	
Month Mean	85	39	63	75	52	64	72	56	62	3702	5	1.86					100	16	56	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④	Av. of Max. & Min.		

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2"=4% at 11-13"=4%  
② Rim of gauge 40 inches above ground      at 5-7"=4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month August Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	70	41	56															100	45	72
2	81	49	65															54	10	32
3	75	52	64															58	23	40
4	78	50	64															55	21	38
5	84	56	70															27	10	18
6	83	51	67															40	10	25
7	80	53	66	73	56	64	67	59	63	1160	7	.00	0				33	12	25	
8	85	59	72															36	18	27
9	81	59	70															48	25	36
10	84	56	70															53	21	37
11	75	41	58															89	34	62
12	82	49	66															82	26	54
13	85	56	70															46	14	30
14	89	59	74															32	14	23
15	80	54	67	74	61	68	68	62	65	1231	6	.00	0	5	3	4	59	25	42	
16	83	51	67															60	28	44
17	91	58	74															79	23	51
18	79	54	66															100	30	65
19	76	47	62															100	29	64
20	76	51	64															48	21	34
21	72	53	62															75	26	50
22	75	52	64	76	54	65	69	58	64	993	6	.40	0				54	26	40	
23	67	39	53															100	34	67
24	66	36	51															100	22	61
25	79	46	62															27	8	18
26	81	53	67															18	6	12
27	81	49	65															47	11	29
28	78	40	59															67	10	38
29	80	45	62															75	12	44
30	51	39	45															100	73	86
31	58	33	46	71	52	62	66	55	60	1197	6	.20	0	10	5	4	100	42	71	
Month Mean	91	33	64	76	52	65	69	55	63	4581	6	.60					100	6	43	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④	Av. of Max. & Min.		

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2"=4% at 11-13"=4%  
② Rim of gauge 40 inches above ground      at 5-7"=4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado



Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month September Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	73	41	57														100	15	58
2	78	47	62														33	6	20
3	66	39	52														100	20	60
4	45	35	40														100	33	66
5	77	45	61														37	8	22
6	77	55	66														28	13	20
7	68	47	58														46	22	34
8	56	28	42	68	50	59	62	54	58	ND	ND	.02	0				100	36	68
9	57	24	40														100	16	58
10	72	40	56														20	6	13
11	78	52	65														19	9	14
12	79	54	66														20	9	14
13	79	50	64														32	15	24
14	75	51	63														64	23	44
15	77	52	64	62	48	55	61	51	56	ND	ND	.02	0	3	3	7	54	18	36
16	68	49	58														95	37	66
17	74	48	61														62	19	40
18	79	47	63														100	17	58
19	68	43	56														100	32	66
20	60	46	53														100	42	71
21	64	43	54														100	48	74
22	69	43	56	63	49	56	59	52	56	ND	ND	.42	0				91	16	54
23	68	45	56														59	24	42
24	62	41	52														100	48	74
25	61	37	49														100	36	68
26	62	38	50														100	37	68
27	69	41	55														100	25	62
28	64	42	53														69	30	50
29	57	40	48														71	37	54
30	59	34	46	58	48	53	56	46	51	968	5	.45	0	5	3	4	59	19	39
31																			
Month	79	24	56	68	48	56	62	46	55	ND	ND	.91					100	6	48
Month Mean	68	43		63	49		60	51									72	24	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ①	Av. of Max. & Min.	

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month October Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	56	35	46														100	36	68
2	44	35	40														100	64	82
3	70	31	50														100	10	55
4	71	44	58														30	12	21
5	62	37	50														98	28	63
6	53	35	44	58	ND	ND	52	ND	ND	578	4	.71	0				72	34	53
7	60	39	50														59	28	44
8	63	41	52														48	22	35
9	71	42	56														38	13	26
10	73	46	60														29	10	20
11	72	47	60														28	12	20
12	70	44	57														36	12	24
13	74	47	60	51	42	46	50	44	47	1287	8	.00	0				23	9	16
14	72	47	60														56	13	34
15	51	29	40														100	52	76
16	41	27	34														100	52	76
17	57	34	46														94	37	66
18	63	33	48														99	27	63
19	48	31	40														100	59	80
20	57	25	41														100	24	62
21	63	40	52	51	38	44	50	40	45	923	5	.15	T				44	20	32
22	62	33	48														100	17	58
23	59	29	44														100	18	59
24	48	26	37														100	30	65
25	61	24	42														100	8	54
26	64	36	50	44	36	40	44	39	42	731	6	.00	0				22	9	16
27	56	27	42														100	14	57
28	53	26	40														100	32	66
29	61	35	48														61	18	40
30	61	36	48														65	31	48
31	56	28	42	40	35	38	41	38	40	438	4	.00	0	6	4	5	86	28	57
Month	74	24	48	58	35	43	52	38	44	3957	5	.86					100	8	50
Month Mean	60	35		49	38		47	40									74	25	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ①	Av. of Max. & Min.	

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month November Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	40	30	35														84	50	67
2	48	27	38														100	42	71
3	56	26	41														100	23	62
4	59	37	48														42	18	30
5	59	37	48														38	14	26
6	45	24	34														79	18	48
7	40	19	30														80	24	52
8	57	23	40														24	15	20
9	55	38	46																
10	46	29	38	42	29	36	42	33	38	1465	6	.00	0				98	26	62
11	48	24	36														61	19	40
12	58	35	46														30	17	24
13	58	37	48														42	17	30
14	50	36	43														88	42	65
15	38	19	28																
16	33	19	26																
17	22	12	17	38	32	35	39	34	36	1119	7	.40	4						
18	23	13	18																
19	38	11	24														100	30	65
20	51	30	40														100	30	65
21	40	32	36														66	40	53
22	50	28	39														55	25	40
23	40	22	31														100	23	62
24	45	31	38	35	32	34	37	34	36	1689	10	.10	3				58	25	42
25	49	30	40														65	38	52
26	52	32	42														64	29	46
27	53	30	42														50	29	40
28	43	25	34														93	39	66
29	46	29	38														64	24	44
30	51	31	41	34	28	31	35	31	33	807	5	.00	T	5	4	4	54	30	42
31																			
Month	59	11	37	42	28	34	42	31	36	5080	7	.50					100	14	48
Month Mean	46	27		37	30		38	33									69	28	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4%  
at 5-7" = 4%  
at 11-13" = 4%

Data collected by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month December Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	50	28	39														94	46	70
2	47	24	36														100	39	70
3	42	23	32														100	53	76
4	26	9	18														100	35	68
5	37	8	22														93	31	62
6	40	28	34														100	30	65
7	43	25	34														96	35	66
8	42	30	36	32	28	30	33	30	32	2336	13	.10	T				64	45	54
9	48	30	39														52	30	46
10	45	16	30														100	21	60
11	44	15	30														100	24	62
12	49	29	39														53	32	42
13	54	31	42														42	20	31
14	51	30	40														38	12	25
15	58	36	47	30	24	27	32	27	30	1152	7	.00	T				57	26	42
16	58	36	47														49	24	36
17	53	31	42														53	24	38
18	43	25	34														70	33	52
19	31	23	27														100	70	85
20	33	14	24														100	46	73
21	34	16	25														78	37	58
22	32	4	18	29	25	27	31	28	30	1014	6	.10	1				100	44	72
23	24	4	14														100	70	85
24	8	-3	2														100	95	98
25	16	-6	5														100	48	74
26	29	2	16														57	21	39
27	34	16	25														56	22	39
28	39	22	30														60	20	40
29	44	24	34														54	22	38
30	52	28	40														24	12	18
31	51	24	38	27	22	24	29	25	27	1364	6	.30	3	6	4	4	42	18	30
Month	58	-6	30	32	22	27	33	25	29	5866	8	.50					100	12	55
Month Mean	41	20		30	25		31	28									76	35	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4%  
at 5-7" = 4%  
at 11-13" = 4%

Data collected by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month January Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	39	24	32													44	28	36	
2	53	25	39													53	28	40	
3	42	27	34													61	42	52	
4	29	14	22													100	58	79	
5	39	11	25													100	34	67	
6	34	14	24	28	22	25	28	24	26	652	4	.30	6			63	36	50	
7	46	17	32													36	25	30	
8	41	28	34													29	20	24	
9	34	18	26													100	25	62	
10	18	-25	-4																
11																			
12	-2	-32	-17	26	22	24	28	24	26	1052	8	.20	4			100	45	72	
13	17	-13	2													59	40	50	
14	20	4	12													62	32	47	
15	31	9	20													66	35	50	
16	29	8	18													98	52	75	
17	21	10	16													85	42	64	
18	15	-25	-5	24	20	22	25	21	23	1229	8	.10	3			100	66	83	
19	17	-27	-5													100	41	70	
20	25	9	17													98	47	72	
21	32	20	26													75	46	60	
22	28	-20	4													100	43	72	
23	22	-20	1													100	35	68	
24	36	21	28													78	30	54	
25	22	11	16	24	18	21	26	21	24	2305	14	.50	6			100	62	81	
26	12	-13	0													100	34	67	
27	30	7	18													44	30	37	
28	35	13	24													93	23	58	
29	33	15	24													100	62	81	
30	40	25	32													100	57	78	
31	43	35	39	26	22	24	28	22	25	2102	14	.50	5	4	3	4	100	49	74
Month Mean	53	-32	18	28	18	23	28	21	25	7340	10	1.60				100	20	50	
Month Mean	29	6		26	21		27	22								81	40		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4%, at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month February Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	43	27	35													100	61	80	
2	43	24	34													100	40	70	
3	52	31	42													54	29	42	
4	56	37	46													51	26	38	
5	57	35	46													41	22	32	
6	56	31	44													40	18	29	
7	58	32	45													59	10	34	
8	42	24	33													100	53	76	
9	30	21	26	32	26	29	32	26	29	1910	9	.60	6			100	75	88	
10	22	-2	10													100	86	93	
11	13	-7	3													98	64	81	
12	31	-6	12													78	30	54	
13	40	12	26													38	16	27	
14	41	19	30													55	18	36	
15	27	19	23													100	52	76	
16	35	11	23	31	26	28	32	26	29	559	3	.60	12			100	33	66	
17	43	14	28													76	23	50	
18	39	20	30													97	31	64	
19	36	19	28													86	45	66	
20	40	20	30													100	46	73	
21	40	14	27													100	42	71	
22	43	16	30													98	34	66	
23	38	21	30	28	26	27	29	26	28	1433	9	.10	8			73	44	58	
24	40	22	31													100	31	66	
25	38	16	27													100	25	62	
26	49	28	38													77	21	49	
27	32	16	24													100	33	66	
28	37	16	26	28	24	26	29	26	28	1695	14	.10	6			60	35	48	
29																			
30																			
31																			
Month Mean	58	-7	30	32	24	28	32	26	28	5597	8	1.40				100	10	59	
Month Mean	40	19		30	26		30	26								82	37		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4%, at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month March Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	39	19	29												100	42	71		
2	34	18	26												100	33	66		
3	21	9	15												100	84	92		
4	15	0	8												100	76	88		
5	37	0	18												100	26	63		
6	35	11	23												78	29	54		
7	38	14	26												63	38	50		
8	36	13	24												87	38	62		
9	48	23	36	28	24	26	29	25	27	1604	7	1.00	12		47	20	34		
10	44	21	32												100	29	64		
11	32	17	24												100	39	70		
12	20	9	14												100	80	90		
13	31	4	18												100	30	65		
14	47	9	28												52	20	36		
15	48	15	32												100	27	64		
16	30	14	22	29	26	28	30	26	28	1274	8	1.20	16		72	24	48		
17	43	12	28												99	32	66		
18	37	23	30												100	31	66		
19	42	20	31												61	22	42		
20	47	23	35												80	24	52		
21	53	24	38												74	18	46		
22	58	33	46												32	14	23		
23	54	35	44	32	27	30	32	27	30	896	5	.10	7		44	18	31		
24	47	26	36												51	26	38		
25	46	22	34												54	15	34		
26	53	26	40												29	16	22		
27	60	35	48												28	14	21		
28	58	28	43												100	24	62		
29	53	26	40												50	18	34		
30	56	34	45												42	20	31		
31	59	35	47	42	31	36	36	29	33	1868	10	.15	0	16	18	15	44	20	32
Month	60	0	31	42	24	30	36	25	29	5642	8	2.45			100	14	52		
Month Mean	43	19		33	27		32	27							74	31			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ①		Av. of Max. & Min.

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 4% at 11-13" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month April Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	59	37	48												41	12	26			
2	50	21	36												72	23	48			
3	42	19	30												72	17	44			
4	51	21	36												76	14	45			
5	50	26	38												57	30	44			
6	61	33	47	43	34	38	37	34	36	1204	9	.00	0		53	25	39			
7	64	35	50												100	22	61			
8	56	31	44												100	21	60			
9	49	30	40												100	48	74			
10	49	24	36												100	7	54			
11	52	22	37												100	6	53			
12	61	24	42	49	37	43	45	37	41	888	6	.20	0		100	3	52			
13	66	40	53												21	5	13			
14	72	39	56												24	10	17			
15	62	33	48												58	12	35			
16	51	29	40												59	24	42			
17	51	25	38												82	29	56			
18	35	19	27												100	30	65			
19	43	21	32	50	35	42	47	38	42	1586	10	.00	0		61	25	43			
20	52	27	40												100	21	60			
21	33	23	28												100	60	80			
22	41	20	30												82	15	48			
23	51	20	36												75	6	40			
24	52	23	38												100	10	55			
25	57	28	42	ND	35	ND	45	38	42	992	7	.00	0		59	16	38			
26	62	36	49												100	40	70			
27	45	27	36												77	26	52			
28	48	27	38												100	40	70			
29	50	28	39												100	43	72			
30	59	26	42	51	38	44	47	41	44	800	7	.20	0	10	10	9	100	26	63	
31																				
Month	72	19	40	51	34	42	47	34	41	5470	8	.40			100	3	51			
Month Mean	53	27		48	36		44	38							79	22				
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ①		Av. of Max. & Min.	

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 4% at 11-13" = 4%  
 at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month May Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"			
1	63	34	48														100	20	60
2	59	35	47														64	25	44
3	69	38	54														50	16	33
4	64	38	51														100	27	64
5	71	36	54														100	19	60
6	73	43	58														45	21	33
7	74	49	62	55	40	48	51	41	46	907	5	.00	0				32	12	22
8	77	47	62														65	12	38
9	69	42	56														99	18	58
10	66	40	53														52	29	40
11	76	46	61														37	14	26
12	56	35	46	62	47	54	55	48	52	913	7	.00	0				39	20	30
13	67	31	49														46	23	34
14	68	45	56														35	20	28
15	71	44	58														73	17	45
16	66	38	52														100	33	66
17	65	33	49														100	26	63
18	67	34	50														100	17	58
19	42	30	36	62	47	54	56	49	52	723	4	.21	0				100	100	100
20	56	30	43														100	29	64
21	48	29	38														100	48	74
22	51	30	40														100	50	75
23	67	40	54														100	25	62
24	64	39	52														100	22	61
25	65	41	53														63	18	40
26	64	40	52														100	21	60
27	64	36	50	60	42	51	55	46	50	850	4	.49	0				100	26	63
28	66	42	54														100	26	63
29	69	43	56														100	23	62
30	72	41	56														96	33	64
31	70	41	56	63	48	56	57	51	54	473	5	.17	0	6	6	5	94	30	62
Month	77	29	52	63	40	53	57	41	51	3866	5	.87					100	12	53
Month Mean	65	38		60	45		55	47									80	26	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 5-7" = 4%
- ② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month June Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"				
1	73	45	59														55	16	36	
2	55	42	48														100	53	76	
3	69	43	56														92	19	56	
4	75	44	60														63	6	34	
5	71	45	58														52	12	32	
6	71	42	56														100	14	57	
7	70	47	58	68	49	58	60	51	56	758	4	.11	0				40	22	31	
8	63	37	50														100	31	66	
9	60	36	48														100	19	60	
10	63	38	50														100	26	63	
11	68	43	56														49	10	30	
12	77	45	61														70	17	44	
13	80	50	65	67	48	58	60	50	55	ND	ND	1.12	0				37	17	27	
14	69	46	58														100	32	66	
15	57	41	49														100	56	78	
16	44	36	40														100	90	95	
17	60	34	47														100	37	68	
18	55	44	50														100	44	72	
19	69	41	55														72	18	45	
20	75	49	62	68	46	57	60	49	54	575	3	3.27	0	18	15	15	52	17	34	
21	81	52	66														44	5	24	
22	76	51	64														35	11	23	
23	77	54	66														39	16	28	
24	83	53	68														44	12	28	
25	74	49	62														38	14	26	
26	81	47	64														54	12	33	
27	84	50	67	74	53	64	67	55	61	388	ND	.00	0				68	28	48	
28	84	60	72														35	22	28	
29	84	56	70														34	14	24	
30	84	51	68	75	62	68	68	62	65	ND	ND	.00	0	5	7	9	41	20	30	
31																				
Month	84	34	58	75	46	61	68	49	58	1721	ND	4.50					100	5	45	
Month Mean	71	46		70	52		63	53									67	24		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.						

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 5-7" = 4%
- ② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month July Year 1963

UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	71	54	62															96	30	63
2	82	52	67															88	26	57
3	81	54	68															70	31	50
4	79	53	66	75	52	69	69	62	66	353	4	.01	0				100	40	70	
5	77	55	66															61	32	46
6	85	52	68															88	27	58
7	85	48	66															82	29	64
8	81	48	64															80	30	56
9	76	53	64														100	43	72	
10	79	53	66															79	23	51
11	75	52	64	74	59	66	68	61	64	765	4	.56	0				100	31	66	
12	79	54	66															65	19	42
13	74	53	64															84	42	63
14	80	53	66															71	20	46
15	78	53	66															50	24	37
16	84	52	68															100	25	62
17	82	56	69															84	32	58
18	87	58	72	73	58	66	67	61	64	891	5	.19	0	4	4	4	44	20	32	
19	79	55	67															80	27	54
20	88	56	72															84	20	52
21	90	55	72															77	20	48
22	85	56	70															96	36	66
23	82	52	67															100	34	67
24	78	56	67															100	34	67
25	84	60	72	75	58	67	70	60	65	828	5	1.49	0				55	18	36	
26	73	54	64															100	34	67
27	54	47	50															100	100	100
28	75	43	60															100	12	56
29	82	54	68															40	10	25
30	84	55	70															21	9	15
31	83	56	70	74	56	65	68	58	63	637	4	.09	0	13	11	11	27	18	22	
Month	90	43	66	75	56	67	70	58	64	3474	5	2.34					100	9	54	
Month Mean	80	53		75	59		68	60									79	29		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2"=4% at 11-13"=4%
- ② Rim of gauge 40 inches above ground

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month August Year 1963

UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	85	58	72															82	21	52
2	76	49	62															100	37	68
3	63	49	58															100	60	80
4	71	49	60															100	48	74
5	70	49	60															100	50	75
6	66	52	59															100	56	78
7	69	51	60															100	50	75
8	79	51	65	74	56	65	69	58	64	881	5	1.57	0	14	11	12	100	39	70	
9	66	51	58															100	49	74
10	74	48	61															94	40	67
11	68	51	60															100	46	73
12	59	48	54															100	79	90
13	61	46	54															100	54	77
14	73	47	60															84	37	60
15	79	55	67	67	53	60	63	55	59	578	3	1.77	0	26	15	14	65	26	46	
16	77	51	64															57	29	43
17	61	47	54															100	55	78
18	70	45	58															100	35	68
19	76	48	62															86	25	56
20	72	55	64															63	36	50
21	75	53	64															100	43	72
22	72	50	61	67	54	60	63	56	60	762	5	.26	0	13	14	13	100	45	72	
23	75	47	61															100	54	77
24	73	48	60															100	32	66
25	76	50	63															97	28	62
26	74	50	62															100	38	69
27	67	49	58															100	43	72
28	66	52	59															100	44	72
29	65	47	56															100	48	74
30	67	46	56															100	31	66
31	60	44	52	66	53	60	62	56	59	840	4	.94	0	15	11	12	100	39	70	
Month	85	44	60	74	53	61	69	55	60	3061	4	4.54					100	21	68	
Month Mean	71	50		68	54		64	56									94	42		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2"=4% at 11-13"=4%
- ② Rim of gauge 40 inches above ground

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month September Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity							
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean			
1	66	44	55													86	27	56			
2	70	46	58													60	24	42			
3	76	46	61													100	27	60			
4	67	43	55													100	42	71			
5	80	49	64	↓	↓	↓	↓	↓	↓	↓	↓				100	28	64				
6	73	49	61	68	52	60	64	54	59	656	5	.05			14	10	9	100	36	68	
7	59	48	54													100	73	86			
8	70	47	58													100	48	74			
9	67	47	57													100	34	67			
10	70	49	60													53	28	40			
11	69	51	60													54	27	40			
12	70	44	57													100	39	70			
13	73	51	62	67	50	58	64	53	58	819	5	1.70			17	18	15	64	24	44	
14	63	46	54													83	46	64			
15	63	44	54													100	55	78			
16	74	45	60													84	31	58			
17	73	49	61													58	30	44			
18	75	50	62													100	30	65			
19	75	50	62													100	36	68			
20	53	46	50	62	51	56	58	53	56	676	4	.70			22	14	8	100	96	98	
21	53	44	48													100	65	82			
22	65	39	52													100	34	67			
23	73	48	60													64	23	44			
24	60	42	51													100	50	75			
25	68	41	54													88	16	52			
26	74	48	61													50	26	38			
27	73	49	61													49	28	38			
28	62	38	50													100	27	64			
29	69	39	54	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
30	74	47	60	58	48	53	56	50	53	842	4	.48			21	10	10	100	18	59	
31																					
Month	80	38	57	68	48	57	64	50	56	2993	4	2.93							100	16	61
Month Mean	69	46	57	64	50	57	60	52	56							86	37	61			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.						

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%
- ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project Supported by U. S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month October Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity							
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean			
1	73	51	62													39	21	30			
2	70	50	60													45	28	36			
3	71	49	60													43	23	33			
4	76	50	63	↓	↓	↓	↓	↓	↓	↓	↓				35	20	28				
5	73	49	61	58	49	54	56	51	54	661	6	.00			11	10	10	35	23	29	
6	70	48	59													49	29	39			
7	71	48	60													53	34	44			
8	69	46	58													54	32	43			
9	69	48	58													47	31	39			
10	72	40	56	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	79	28	54			
11	68	38	53													91	40	66			
12	67	45	56	58	48	53	56	50	53	669	4	.00			6	6	6	67	37	52	
13	62	38	50													90	47	68			
14	65	36	50													63	31	47			
15	58	40	49													66	43	54			
16	61	38	50													80	44	62			
17	67	38	52	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	84	31	58			
18	68	44	56	55	43	49	53	46	50	564	4	.00			6	7	7	49	26	38	
19	63	44	54													54	28	42			
20	46	37	42													100	51	76			
21	59	35	47													100	18	59			
22	63	38	50													39	7	23			
23	59	40	50													66	25	46			
24	51	36	44													89	31	60			
25	63	39	51	51	39	45	49	42	46	780	5	.83			10	9	7	40	24	32	
26	54	31	42													100	38	69			
27	48	28	38													100	50	75			
28	51	21	36													100	18	59			
29	58	42	50													52	29	40			
30	61	34	48	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	85	19	52			
31	74	16	25	45	37	41	45	40	42	682	5	.18			2	12	11	8	100	95	98
Month	36	16	51	58	37	48	56	40	49	3356	4	1.01							100	7	50
Month Mean	63	40	53	43	48	52	46	42	46							68	32	61			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.						

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 4%
- ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project Supported by U. S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month November Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"   5-7"   11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"			
1	44	16	30																
2	58	33	46																
3	44	26	35																
4	45	30	38																
5	45	27	36																
6	52	32	42																
7	48	25	36																
8	45	25	35	39	34	36	41	36	38	1155	6	.15	0	22	9	9	100	35	68
9	51	37	44																
10	54	33	44																
11	43	23	33																
12	46	20	33																
13	49	33	41																
14	60	40	50																
15	58	38	48																
16	41	19	30	38	34	36	39	36	38	1189	6	.00	0	13	10	9	100	41	70
17	40	13	26																
18	44	21	32																
19	48	21	34																
20	49	25	37																
21	40	26	33																
22	34	21	28	36	34	35	38	35	36	704	5	.80	3	16	9	8	80	36	58
23	50	25	38																
24	39	24	32																
25	36	19	28																
26	55	28	42																
27	60	33	46																
28	40	18	29																
29	43	26	34																
30	52	30	41	34	30	32	36	33	34	1209	5	.10	3	18	9	8	100	30	65
31																			
Month	60	13	37	39	30	35	41	33	37	4257	6	1.05					100	15	51
Month Mean	47	26		37	33		38	35									72	30	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4%; at 11-13" = 4%;  
② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month December Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"   5-7"   11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"			
1	39	15	27																
2	48	18	33																
3	48	28	38																
4	50	27	38																
5	48	29	38																
6	46	16	31																
7	20	9	14	32	26	29	34	30	32	1152	7	.00	0	7	6	5			
8																			
9																			
10	34	5	20																
11	14	-13	0																
12	17	6	12																
13	20	6	13																
14	30	10	20	28	24	26	31	28	30	1302	8	.20	0	6	6	6	74	45	60
15	33	17	25																
16	41	24	32																
17	36	26	31																
18	46	27	36																
19	41	25	33																
20	35	20	28	29	25	27	30	28	29	1203	8	.10	5				100	35	68
21	23	14	18																
22	27	10	18																
23	49	23	36																
24	54	33	44																
25	45	27	36																
26	38	19	28																
27	29	20	24																
28	32	17	24																
29	25	11	18																
30	40	15	28																
31	44	28	36	30	27	28	31	28	30	2709	10	.50	4	25	2	4	59	17	38
Month	54	-13	27	32	24	28	30	28	30	6366	8	.80					100	3	52
Month Mean	36	17		30	26		32	28									71	32	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4%; at 11-13" = 4%;  
② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado



Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month January Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	48	27	38												58	30	44		
2	39	17	28												100	31	66		
3	29	9	19	30	28	29	30	29	30	585	8	.30	4		100	24	62		
4	37	17	27												50	12	31		
5	21	8	14												55	30	42		
6	33	11	22												55	35	45		
7	33	6	20												100	24	62		
8	13	-1	6												100	50	75		
9	29	0	14												57	32	44		
10	25	4	14	30	26	28	30	27	28	2046	14	.20	4		100	32	66		
11	15	-8	4												100	34	67		
12	15	-8	4												100	30	65		
13	36	1	18												30	12	21		
14	40	10	25												23	13	18		
15	27	5	16												100	20	60		
16	42	20	31												54	25	40		
17	34	21	28	27	23	25	28	25	26	ND	ND	.20	3		100	29	64		
18	30	16	23												86	47	66		
19	25	11	18												92	56	74		
20	43	24	34												73	21	47		
21	43	25	34												55	24	40		
22	32	19	26												100	43	72		
23	20	9	14												71	29	50		
24	14	3	8												61	32	46		
25	33	13	23	28	22	25	28	23	26	ND	ND	.00	I		59	34	46		
26	40	15	28												100	36	68		
27	44	14	29												78	12	45		
28	48	18	33												45	12	28		
29	50	17	34												29	10	20		
30	48	18	33												60	10	35		
31	29	19	24	27	22	24	28	23	26	ND	ND	.20	3	18	6	5	46	30	38
Month Mean	50	-8	22	30	22	26	30	23	27	2631	12	.90			100	10	50		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④	Av. of Max. & Min.	

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 4% at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft. Exposure Ridgetop Month February Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	28	18	23												100	23	62			
2	19	7	13												100	46	73			
3	21	1	11												100	66	83			
4	45	13	29												100	27	64			
5	43	12	28												100	20	60			
6	20	3	12												100	34	67			
7	27	3	15												66	30	48			
8	28	14	21	28	ND	ND	28	25	26	ND	ND	.70	4		60	36	48			
9	32	18	25												93	43	68			
10	46	25	36												80	31	56			
11	49	21	35												100	15	58			
12	21	7	14												100	71	86			
13	38	7	22												100	23	62			
14	19	0	10												100	70	85			
15	31	-1	15	28	26	27	29	26	28	1342	8	.80	9		94	27	60			
16	27	9	18												50	30	40			
17	27	9	18												97	34	66			
18	26	8	17												67	28	48			
19	27	8	18												100	40	70			
20	25	-1	12												100	52	76			
21	29	3	16												79	27	53			
22	28	5	16	28	24	26	29	25	27	2275	14	.20	9		100	47	74			
23	29	0	14												100	22	61			
24	42	13	28												100	21	60			
25	14	-4	5												100	67	84			
26	33	4	18												93	21	57			
27	22	1	12												58	30	44			
28	47	10	28												37	12	24			
29	39	19	29	27	24	26	28	26	27	1041	6	.30	6	8	5	15	49	17	33	
30																				
31																				
Month Mean	49	-4	19	28	24	26	29	25	27	4658	9	2.00			100	12	61			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④	Av. of Max. & Min.		

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 4% at 5-7" = 4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month March Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	46	21	34														55	26	40
2	37	13	25														100	47	74
3	20	5	12														100	74	87
4	26	5	16														80	33	56
5	30	12	21														90	42	66
6	27	1	14														100	23	62
7	20	5	12	29	26	28	30	26	28	1325	8	.70	14				100	80	90
8	26	1	14														100	59	80
9	38	4	21														98	49	74
10	30	5	18														100	47	74
11	38	6	22														79	42	60
12	47	20	34														100	37	68
13	36	9	22														100	46	73
14	29	2	16	29	26	28	30	27	28	1243	7	.20	14				100	45	72
15	34	17	26														83	57	70
16	40	9	24														100	38	69
17	52	24	38														72	37	54
18	52	22	37														100	32	66
19	28	8	18														100	76	88
20	33	5	19	31	25	28	31	27	29	1080	7	.30	12				100	42	71
21	51	19	35														50	33	42
22	52	22	37														100	28	64
23	32	6	19														100	59	80
24																			
25																			
26																			
27	27	-5	11	32	29	30	31	30	30	1377	8	.60	17				100	56	78
28	40	9	24														100	41	70
29	49	20	34														100	40	70
30	54	30	42														66	40	53
31	55	32	44	32	28	30	32	30	31	484	5	.00	12				100	20	45
Month	55	-5	25	32	25	29	32	26	29	5509	7	1.80					100	23	68
Month Mean	38	12		31	27		31	28									90	45	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4%, at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month April Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	52	29	40														100	55	78
2	38	23	30														100	63	82
3	24	8	16														100	100	100
4	30	9	20														100	86	93
5	42	17	30														100	44	72
6	28	14	21	↓	↓	↓	↓	↓	↓	↓	↓	↓				100	90	95	
7	30	12	21	32	30	31	32	30	31	829	5	1.90	15				100	81	90
8	42	12	27														100	45	72
9	50	19	34														82	35	58
10	49	25	37														100	45	72
11	54	27	40	32	31	32	32	31	32	509	5	.10	18				87	34	60
12	34	19	26														100	46	73
13	31	15	23														100	55	78
14	51	24	38														100	34	67
15	59	35	47														56	28	42
16	60	37	48														45	28	36
17	39	22	30	↓	↓	↓	↓	↓	↓	↓	↓	↓				100	36	68	
18	54	22	38	36	30	33	36	31	34	1773	11	.00	0				100	37	68
19	46	29	38														100	84	92
20	39	29	34														100	46	73
21	50	28	39														80	32	56
22	48	28	38														97	37	67
23	61	31	46														48	25	36
24	62	34	48														62	27	44
25	40	22	31	46	32	39	42	32	37	1147	7	.00	0				92	42	67
26	40	22	31														97	59	78
27	38	24	31														99	57	78
28	60	28	44														100	40	70
29	57	31	44														100	50	75
30	56	29	42	49	34	42	44	36	40	1127	10	.00	0				100	38	69
31																			
Month	62	8	34	49	30	35	44	30	35	5385	8	2.00					100	25	70
Month Mean	46	24		39	32		37	32									92	49	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4%, at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month May Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	58	32	45															100	34	67
2	53	24	38															78	30	54
3	40	20	30															100	38	69
4	60	30	45															50	18	34
5	55	30	42															61	22	42
6	54	29	42															62	30	46
7	58	23	40	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	25	62	
8	47	23	35	48	36	42	44	38	41	20	21	10	.20	0			89	21	55	
9	56	29	42															58	20	39
10	59	31	45															73	28	50
11	48	23	36															100	27	64
12	56	22	39															100	26	63
13	69	37	53															34	16	25
14	74	45	60															30	14	22
15	77	45	61	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	30	14	22	
16	73	46	60	58	37	48	53	39	46	10	45	6	.00	0	11	11	11			
17	80	50	65																	
18	68	41	54																	
19	73	41	57																	
20	79	46	62																	
21	76	52	64																	
22	75	51	63	62	50	56	56	49	52	7	35	5	.00	0	6	10	11			
23	73	39	56															100	24	62
24	76	37	56															98	35	66
25	79	50	64															89	26	58
26	50	38	44															100	73	86
27	48	37	42															100	78	89
28	46	35	40															100	87	94
29	47	31	39															100	87	94
30	39	29	34															100	84	92
31	41	30	36	63	38	50	58	40	49	7	19	3	1.53	0	ND	12	12	100	80	90
Month	80	20	48	63	36	49	58	38	47	45	20	6	1.73					100	14	60
Month Mean	61	35	48	58	40	53	53	42	52	45	20	6	1.73					81	39	60
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2"=4% at 5-7"=4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month June Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	39	31	35															100	86	93
2	46	31	38															100	73	86
3	54	40	47															100	42	71
4	57	38	48															100	57	78
5	69	39	54	54	38	46	48	40	44	4	07	4	.62	0	17	18	16	100	30	65
6	67	46	56															70	32	51
7	75	46	60															65	33	49
8	57	35	46															100	29	64
9	67	40	54															100	30	65
10	59	37	48	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	59	80
11	68	41	54	63	46	54	55	46	50	10	60	7	.08	0	10	12	13	100	20	60
12	71	43	57															100	38	69
13	65	41	53															100	50	75
14	58	39	48															100	38	69
15	75	44	60															66	33	50
16	76	53	64															51	17	34
17	76	42	59															68	23	46
18	62	40	51	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	81	32	56
19	69	42	56	66	48	57	60	50	55	12	17	6	.21	0	6	8	9	96	34	65
20	63	40	52															100	55	78
21	51	39	45															100	50	75
22	55	35	45															84	42	63
23	70	36	53															68	24	46
24	76	46	61															47	24	36
25	77	52	64	67	50	58	60	48	54	6	33	4	.25	0	6	6	9	42	21	32
26	83	55	69															43	20	32
27	76	55	66															42	26	34
28	75	50	62															100	30	65
29	70	50	60	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	82	40	61
30	73	48	60	ND	ND	ND	62	52	57	5	78	5	.23	0	7	6	6	100	37	68
31																				
Month	83	31	54	67	38	54	62	40	52	38	95	5	1.39					100	17	60
Month Mean	66	42	54	62	46	57	57	47	52	38	95	5	1.39					84	38	60
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2"=4% at 5-7"=4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month July Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	80	52	66														58	24	40	
2	84	51	68	66	52	59	60	52	56	206	4	.07		0			52	20	36	
3	87	55	71														46	17	32	
4	86	57	72														46	21	34	
5	80	60	70														46	28	37	
6	81	58	70														47	29	38	
7	83	54	68														98	35	66	
8	81	47	64														100	29	64	
9	87	47	67	74	58	66	ND	56	ND	836	5	.01		0	2	5	5	100	26	63
10	77	51	64														100	46	73	
11	69	48	58														100	49	74	
12	67	47	57														100	48	74	
13	76	48	62														78	23	50	
14	80	54	67														67	29	48	
15	81	53	67														100	36	68	
16	79	57	68	72	56	64	66	58	62	752	5	1.66		0	16	16	14	56	34	45
17	79	59	69														59	26	42	
18	78	55	66														92	38	65	
19	84	55	70														58	21	40	
20	84	61	72														53	23	38	
21	83	57	70														99	27	63	
22	84	59	72														56	32	44	
23	84	52	68	74	58	66	62	58	60	846	5	.10		0	2	4	4	100	32	66
24	70	51	60														100	52	76	
25	79	50	64														100	20	60	
26	81	54	68														53	27	40	
27	82	59	70														35	21	28	
28	78	49	64														100	33	66	
29	77	49	63														96	40	68	
30	79	51	65														100	34	67	
31	80	54	67	74	58	66	68	59	64	851	5	1.40		0	17	9	5	100	34	67
Month	87	47	67	74	52	64	68	52	60	3491	5	3.24						100	17	54
Month Mean	80	53		72	56		64	57										77	31	

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2"=4% at 11-13"=4% at 5-7"=4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month August Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	80	55	68														84	34	59	
2	75	53	64														100	43	72	
3	70	52	61														100	47	74	
4	73	51	62														90	48	69	
5	78	52	65														76	34	55	
6	74	50	62	69	56	62	64	58	61	677	5	.28		0			100	46	73	
7	71	48	60														100	53	76	
8	77	50	64														86	36	61	
9	80	57	68														66	24	45	
10	82	51	66														58	23	40	
11	68	39	54														98	39	68	
12	76	48	62														76	30	53	
13	76	52	64	72	55	64	66	58	62	714	4	.35		0			80	32	56	
14	75	52	64														79	37	58	
15	83	53	68														53	23	38	
16	78	47	62														100	31	66	
17	76	45	60														77	33	55	
18	82	49	66														62	28	45	
19	74	49	62														82	39	60	
20	59	35	47	71	56	64	66	59	62	831	5	.14		0			100	28	64	
21	60	36	48														63	33	48	
22	70	38	54														71	26	48	
23	74	40	57														63	22	42	
24	77	39	58														100	22	61	
25	73	37	55														100	20	60	
26	79	50	64														63	20	42	
27	59	40	50	66	52	59	61	56	58	1043	6	.08		0			100	26	63	
28	76	41	58														94	18	56	
29	64	38	51														100	19	60	
30	74	39	56														54	27	40	
31	81	49	65	67	54	60	62	57	60	797	8	.00		0	ND	ND	ND	ND	ND	ND
Month	83	35	60	72	52	62	66	56	61	4062	5	.85						100	18	57
Month Mean	74	46		69	55		64	58										82	31	

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2"=4% at 11-13"=4% at 5-7"=4%

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month September Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	81	50	66																
2	82	45	64																
3	72	41	56																
4	74	38	56																
5	81	53	67																
6	79	53	66																
7	75	48	62																
8	78	51	64																
9	74	51	62																
10	66	41	54																
11	71	37	54																
12	63	41	52																
13	75	45	60																
14	70	41	56																
15	48	39	44																
16	60	35	48																
17	72	42	57																
18	70	40	55																
19	40	32	36																
20	56	29	42																
21	54	39	46																
22	68	38	53																
23	58	31	44																
24	64	34	49																
25	72	48	60																
26	53	28	40																
27	54	25	40																
28	69	44	56																
29	64	43	54																
30	69	45	57																
31																			
Month	82	25	54																
Month Mean	67	41																	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2"=4% at 11-13"=4% at 5-7"=4%

Data collected for Front Range Ecology Project  
Supported by U. S. Army and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month October Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	72	29	50																
2	72	28	50																
3	69	29	49																
4	50	25	38																
5	58	26	42																
6	63	32	48																
7	68	35	52																
8	62	31	46																
9	69	44	56																
10	64	36	50																
11	46	28	37																
12	56	29	42																
13	62	35	48																
14	70	38	54																
15	69	45	57																
16	68	48	58																
17	49	26	38																
18	40	17	28																
19	53	18	36																
20	63	35	49																
21	63	39	61																
22	43	24	34																
23	46	19	32																
24	53	26	40																
25	58	30	44																
26	58	34	46																
27	59	34	46																
28	60	39	50																
29	68	40	54																
30	58	32	45																
31	50	28	39																
Month	72	17	46																
Month Mean	59	32																	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2"=4% at 11-13"=4% at 5-7"=4%

Data collected for Front Range Ecology Project  
Supported by U. S. Army and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month November Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Avg. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	63	32	48																
2	54	29	42																
3	41	22	32																
4	57	20	38																
5	60	32	46																
6	56	33	44	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
7	60	37	48	40	30	35	40	34	37	858	5	.00	0						
8	59	39	49																
9	57	36	46																
10	49	31	40																
11	36	20	28																
12	39	17	28																
13	48	24	36	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
14	26	10	18	36	29	32	38	33	36	1475	9	.20	7						
15	23	7	15																
16	34	13	24																
17	27	14	20																
18	21	10	16																
19	27	6	16																
20	36	16	26	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
21	40	15	28	34	32	33	36	31	34	834	5	.80	5						
22	53	27	40																
23	38	19	28																
24	49	19	34																
25	40	26	33	ND	ND	ND	ND	ND	ND	810	8	.10	ND						
26	47	27	37																
27	28	16	22																
28	32	16	24																
29	33	21	27	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
30	48	32	40	33	30	32	34	31	32	1653	14	.00	3	ND	ND	ND	70	28	49
31																			
Month	63	6	33	40	29	33	40	31	35	5630	8	1.10							
Month Mean	43	22		36	30		37	32											
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4%  
at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

Station No. B-1 Altitude 8,500 ft Exposure Ridgetop Month December Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Avg. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	46	27	36																
2	37	18	28																
3	33	14	24																
4	26	11	18																
5	31	10	20	33	21	27	34	28	31	515	4	.10	2						
6	26	5	16																
7	40	12	26																
8	48	21	34																
9	30	18	24																
10	32	13	22																
11	34	20	27																
12	20	1	10	30	26	28	29	26	28	1255	8	.00	5						
13	21	2	12																
14	35	13	24																
15	32	24	28																
16	34	-14	10																
17	20	-14	3																
18	42	15	28	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
19	41	24	32	28	21	24	30	22	26	2224	13	.10	3						
20	36	28	32																
21	45	30	38																
22	48	37	42																
23	46	29	38																
24	34	25	30																
25	31	14	22	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
26	38	20	29	32	24	28	33	24	28	3581	21	.70	3						
27	41	24	32																
28	35	13	24																
29	18	5	12																
30	30	4	17	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
31	36	12	24	32	31	32	33	32	32	948	8	.30	6	ND	ND	ND	81	26	54
Month	48	-14	25	33	21	28	34	22	29	8523	11	1.20							
Month Mean	34	15		31	25		32	26											
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4%  
at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month January Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip.	Snow, inches		Soil Moisture		Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph	Inches Water	Total Depth	Total Water Cont.	5-7" [1-13"]		Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean										
1	26	14	20														100	59	80
2	14	-17	-02														100	100	100
3	-03	-15	-09														100	66	83
4	14	-11	02														90	16	53
5	30	12	21														28	13	21
6	33	20	27														79	20	50
7	31	11	21	∨	∨		∨	∨	∨	∨	∨	∨	∨	∨	∨	100	40	70	
8	38	14	26	29	18	24	30	25	28	2705	15	∨	30	29	N-D	60	20	40	
9	43	21	32													38	20	29	
10	45	26	36													32	13	23	
11	40	17	29													98	20	59	
12	54	17	36													69	15	42	
13	43	26	35													100	27	64	
14	28	03	16													100	47	74	
15	06	-08	-01													100	64	82	
16	23	10	17													100	73	87	
17	24	17	21													100	52	76	
18	28	16	22													100	64	82	
19	19	03	11													100	83	92	
20	14	-05	05	31	22	27	31	26	28	3218	11	1.20	42	N-D		100	66	83	
21	09	-03	03													100	44	72	
22	17	08	13													100	46	73	
23	30	17	24													100	52	76	
24	37	22	30	28	18	23	29	24	26	2095	21	∨	20	38	N-D	70	26	48	
25	31	21	26													100	46	73	
26	24	09	17													100	68	84	
27	25	13	19													94	48	72	
28	30	17	24													100	40	70	
29	18	04	11													100	57	79	
30	29	01	15													100	24	62	
31	21	-05	08	28	16	22	29	24	27	1715	10	∨	.55	43	N-D	15	12		
Month Mean	54	-17	18	31	16	24	31	24	27	9733	13	2.25				100	13	67	
Key	Thermograph (Bourdon Tube)	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge	Snow Stake	Ulah Tube	Oven-Drying Method	Hygograph (Hair)	Av. of Max & Min				

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 5-7" = 5%  
 ② Rim of gauge 40 inches above ground                              at 11-13" = 9%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month February Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip.	Snow, inches		Soil Moisture		Relative Humidity			
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph	Inches Water	Total Depth	Total Water Cont.	5-7" [1-13"]		Max	Min	Mean	
				Max	Min	Mean	Max	Min	Mean											
1	13	-08	03													100	100	100		
2	28	-07	11													100	24	62		
3	16	03	10													100	49	75		
4	15	-01	07													100	87	94		
5	15	-01	07													100	62	81		
6	31	12	22	∨	∨		∨	∨	∨	∨	∨	∨	∨	∨	∨	72	31	52		
7	37	20	29	26	16	21	26	23	25	1986	12	∨	40	49	N-D	50	30	40		
8	33	13	23													66	28	47		
9	29	03	16													100	47	74		
10	19	00	10													85	37	61		
11	34	15	25													42	17	30		
12	35	09	22													63	27	45		
13	19	07	13													100	52	76		
14	26	07	17	29	17	23	28	23	26	2185	13	∨	30	49	N-D	51	12	32		
15	36	23	30													85	12	49		
16	36	24	30													100	31	56		
17	30	15	23													100	53	77		
18	27	13	20													100	54	77		
19	26	09	18													100	72	86		
20	30	02	16													100	39	70		
21	39	03	21	30	22	26	29	24	27	1680	10	∨	.75	52	N-D	100	24	62		
22	27	14	21													100	63	82		
23	29	06	18													100	53	77		
24	23	03	13													100	90	95		
25	21	10	16													95	26	61		
26	23	13	18													100	62	81		
27	22	11	17													100	63	82		
28	28	12	20	28	22	25	29	25	27	2128	12	∨	.50	53	N-D	9	N-D	100	26	63
29																				
30																				
31																				
Month Mean	39	-08	17	30	16	24	29	23	26	7979	12	1.95				100	17	68		
Key	Thermograph (Bourdon Tube)	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge	Snow Stake	Ulah Tube	Oven-Drying Method	Hygograph (Hair)	Av. of Max & Min					

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 5-7" = 5%  
 ② Rim of gauge 40 inches above ground                              at 11-13" = 9%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month March Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av Vel. mph		Total Depth	Water Cont.	% Dry Wt.		Max	Min	Mean	
				Max	Min	Mean	Max	Min	Mean						5-7" II-13"					
1	33	25	29													89	36	63		
2	26	13	20													100	47	74		
3	30	10	20													100	47	74		
4	17	-01	08													100	51	76		
5	12	00	06													100	62	81		
6	21	09	15	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	54	77			
7	23	14	19	29	18	24	28	24	26	2487	16	.25	50	N-D	100	54	77			
8	22	11	17													100	44	72		
9	24	15	20													100	31	66		
10	22	-02	10													100	52	76		
11	16	-01	08													100	51	76		
12	32	12	22													81	24	53		
13	32	20	26	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	37	69			
14	19	01	10	29	19	24	28	24	26	2439	15	.60	58	N-D	100	67	84			
15	15	-01	07													96	49	73		
16	29	08	19													74	49	62		
17	39	23	31													54	30	42		
18	41	25	33													97	29	63		
19	34	16	25													100	65	83		
20	21	08	15													100	60	80		
21	39	07	23													63	08	35		
22	42	26	34	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	37	10	24			
23	39	20	30	32	20	26	31	25	28	2636	12	.75	57	N-D	68	32	50			
24	38	14	26													100	58	79		
25	23	13	18													100	100	100		
26	31	13	22													100	50	75		
27	37	05	21									1.30				100	37	69		
28	30	19	25													100	37	69		
29	33	16	25													100	38	69		
30	37	16	27													91	30	61		
31	30	20	25	31	29	30	31	29	30	1574	8	.25	66	N-D	N-D	N-D	100	49	75	
Month Mean	42	-02	20	32	18	26	31	24	27	9136	12	3.15				100	08	68		
Key	Thermograph (Bourdon Tube) ①	Max & Min Thermometers (Weather Bureau Type)							Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%  
 at 11-13" = 9%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month April Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av Vel. mph		Total Depth	Water Cont.	% Dry Wt.		Max	Min	Mean	
				Max	Min	Mean	Max	Min	Mean						5-7" II-13"					
1	36	21	29													100	56	78		
2	44	30	37													68	36	52		
3	46	28	37	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	57	18	38			
4	52	38	45	32	29	30	31	29	30	1869	21	.00	58	N-D	43	22	33			
5	54	30	42													58	21	40		
6	55	25	40													100	19	60		
7	26	10	18													100	53	77		
8	15	07	11													100	85	93		
9	13	02	08													100	73	87		
10	19	08	14	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	52	76			
11	15	02	09	35	31	33	32	29	31	879	5	1.80	77	N-D	100	55	78			
12	32	08	20													72	29	51		
13	46	08	27													57	10	34		
14	46	28	37													99	24	62		
15	44	26	35													100	30	65		
16	37	15	26													100	17	59		
17	39	07	23	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	21	61			
18	37	13	25	33	32	32	32	31	31	1090	7	.30	61	N-D	100	60	80			
19	33	09	21													100	32	66		
20	22	07	15													100	78	89		
21	28	07	18													100	37	69		
22	40	17	29													61	14	38		
23	46	31	39	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	36	24	30			
24	52	37	45	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	40	16	28			
25	54	41	48	32	32	32	32	31	32	1101	7	.80	56	N-D	35	11	23			
26	44	31	38													75	32	54		
27	34	25	30													100	45	73		
28	37	24	31													100	45	73		
29	46	27	37													85	27	56		
30	58	34	46	47	32	39	35	31	33	1861	15	.20	48	N-D	63	11	37			
31																				
Month Mean	58	02	29	47	29	33	35	29	31	6800	9	3.10				100	10	58		
Key	Thermograph (Bourdon Tube) ①	Max & Min Thermometers (Weather Bureau Type)							Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%  
 at 11-13" = 9%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado



Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month May Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture		Relative Humidity			
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av Vel. mph		Total Depth	Water Cont.	% Dry Wt.		Max	Min	Mean	
				Max	Min	Mean	Max	Min	Mean			5-7"			11-13"					
1	58	36	47														66	22	44	
2	56	38	47														100	50	23	37
3	45	31	39														100	45	73	
4	38	25	32														100	85	93	
5	38	21	30														85	25	55	
6	39	19	29														100	34	67	
7	29	21	25														100	100	100	
8	39	28	34														100	56	78	
9	46	30	38	41	34	38	29	35	37	1408	7	.80	43	N-D		100	26	63		
10	39	22	31														100	31	66	
11	56	34	45														47	17	32	
12	59	36	48														90	15	53	
13	48	25	37														100	51	76	
14	46	30	38														100	60	80	
15	53	28	41	53	35	44	44	34	39	1503	9	.10	N-D	N-D		100	53	77		
16	58	30	44														70	26	46	
17	54	31	43														100	33	67	
18	50	32	41														100	35	68	
19	47	28	38														100	70	85	
20	37	22	30														100	73	87	
21	33	16	25														100	84	92	
22	36	23	29	56	34	45	45	36	40	810	5	2.30	36	N-D		100	70	85		
23	50	27	39														94	22	58	
24	55	35	45														100	26	63	
25	50	31	41														100	36	68	
26	47	31	39														100	18	59	
27	55	28	42														100	17	59	
28	56	28	42														100	40	70	
29	53	28	41														100	11	56	
30	57	31	44														100	100	100	
31	38	29	34	55	34	44	46	35	41	1280	6	.00	38	N-D	14	15	100	100	100	
Month	59	16	38	56	34	43	46	34	39	5001	7	3.20					100	11	68	
Month Mean	47	28		51	34		44	35									94	43		
Key	Thermograph (Bourdon Tube) ①	Av of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hygograph (Hair) ④	Av of Max & Min					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 5-7" = 5%  
 ② Rim of gauge 40 inches above ground                              at 11-13" = 9%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month June Year 1959  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture		Relative Humidity				
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av Vel. mph		Total Depth	Water Cont.	% Dry Wt.		Max	Min	Mean		
				Max	Min	Mean	Max	Min	Mean			5-7"			11-13"						
1	48	28	38														100	30	65		
2	54	27	41														100	15	58		
3	59	30	45														100	14	57		
4	59	36	48														84	20	52		
5	64	33	49														100	20	60		
6	69	33	51	64	39	52	50	42	46	704	5	.12	0	N-D		97	19	58			
7	71	40	56														70	22	46		
8	68	37	53														100	23	62		
9	69	37	53														100	14	57		
10	69	47	58														59	15	37		
11	68	37	53														100	20	60		
12	69	38	54														100	26	63		
13	72	41	57														100	19	60		
14	69	40	55	71	48	60	59	50	54	1402	7	.21	0	N-D		100	34	67			
15	67	40	54														100	35	68		
16	68	40	54														100	33	67		
17	69	38	54														100	30	65		
18	69	36	53														100	23	62		
19	60	40	50														100	61	81		
20	60	41	51														100	47	74		
21	60	38	49														100	44	72		
22	61	37	49														100	48	74		
23	70	38	54	67	48	58	57	52	54	998	5	.49	0	N-D		100	24	62			
24	69	48	59														100	28	64		
25	70	41	56														100	28	64		
26	64	40	52														100	25	63		
27	57	33	45														100	32	66		
28	58	35	47														100	45	73		
29	48	38	43	70	44	57	57	50	53	1320	8	1.09	0	N-D	30	22	100	66	83		
30	54	33	44														100	24	62		
31																					
Month	72	27	51	71	39	56	59	42	52	4424	6	1.91					100	14	63		
Month Mean	64	37		68	45		56	48									97	29			
Key	Thermograph (Bourdon Tube) ①	Av of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hygograph (Hair) ④	Av of Max & Min						

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 5-7" = 5%  
 ② Rim of gauge 40 inches above ground                              at 11-13" = 9%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
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Data collected for Front Range Ecology Project  
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 and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month July Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture		Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Wt.		Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean			5-7"			11-13"				
1	59	29	44													100	44	72	
2	65	33	49													100	13	57	
3	64	44	54													100	30	65	
4	60	37	49													100	32	56	
5	65	32	49													100	24	62	
6	68	39	54													75	15	45	
7	67	40	54	71	48	59	58	51	55	1073	6	.03	0	N-D		88	30	59	
8	64	34	49													82	23	53	
9	68	29	49													100	18	59	
10	63	33	48													100	36	68	
11	66	32	49													100	24	62	
12	66	32	49													100	30	65	
13	70	40	55													100	24	62	
14	70	41	56	75	53	64	62	57	59	754	5	.05	0	N-D		100	26	63	
15	69	45	57													100	35	68	
16	61	41	51													100	46	73	
17	63	34	49													100	34	67	
18	63	38	51													100	34	67	
19	58	34	46													100	46	73	
20	63	37	50													100	29	65	
21	67	36	52	70	48	59	60	53	57	838	5	1.11	0	N-D		100	30	65	
22	60	41	51													100	32	66	
23	71	36	54													86	23	55	
24	71	38	55									.15	0			100	22	61	
25	72	45	59													100	34	67	
26	66	44	55													100	32	66	
27	69	44	57													80	26	53	
28	75	50	63													62	18	40	
29	68	46	57													100	40	70	
30	69	41	55													100	34	67	
31	63	42	52	76	48	62	62	53	58	844	5	1.37	0	N-D	15	19	100	46	73
Month	75	29	52	76	48	61	62	51	57	3968	5	2.71				100	13	63	
Month Mean	66	38	52	73	49		60	53								96	30		

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%  
 at 11-13" = 9%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month August Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture		Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Wt.		Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean			5-7"			11-13"				
1	62	45	54													100	45	73	
2	66	47	57													90	39	65	
3	63	40	52													100	44	72	
4	64	40	52													100	36	68	
5	64	43	54													100	34	67	
6	51	41	46													100	38	69	
7	62	41	52	66	48	57	57	52	53	796	5	.90	0	N-D		100	34	67	
8	68	41	55													65	17	41	
9	70	49	60													65	16	41	
10	68	44	56													64	20	42	
11	75	45	60													56	18	37	
12	68	45	57													100	36	68	
13	68	45	57	76	48	62	62	53	57	804	6	.01	0	N-D		100	25	62	
14	49	38	44													100	59	80	
15	62	34	48													100	21	61	
16	65	40	53													56	18	37	
17	72	44	58													57	14	36	
18	74	45	60	72	48	60	60	54	57	620	5	.14	0	N-D		54	20	37	
19	62	46	54													100	48	74	
20	63	40	52													100	39	70	
21	60	44	52													100	40	70	
22	63	41	52													100	33	67	
23	64	37	51													100	27	64	
24	69	40	55													100	38	69	
25	57	41	49	70	47	59	60	54	57	848	5	1.03	0	N-D		100	66	83	
26	60	42	51													100	29	65	
27	65	37	51													100	29	65	
28	68	44	56													58	24	41	
29	67	42	55													58	24	41	
30	63	35	49													100	25	62	
31	68	34	51	70	48	59	59	53	56	756	6	.03	0	N-D	14	21	79	14	47
Month	75	34	53	76	47	59	62	52	56	3823	5	2.11				100	14	59	
Month Mean	65	42	52	71	48		60	53								87	31		

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%  
 at 11-13" = 9%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month September Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture % Dry Wt.			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						5-7"	11-13"				
1	61	33	47														100	19	60	
2	60	28	44														100	18	59	
3	67	30	49														100	17	59	
4	72	39	56														50	20	35	
5	66	49	58														35	21	27	
6	72	50	61	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	32	20	28	
7	72	38	55	70	48	59	59	54	56	1234	7	.00	0	N-D			86	26	56	
8	70	44	57														65	19	42	
9	61	30	46														100	24	62	
10	71	41	56														66	16	41	
11	69	36	53														80	20	50	
12	67	34	51														95	20	58	
13	66	32	49	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	82	26	54	
14	68	40	54	71	50	60	60	56	58	874	5	.00	0	N-D			83	30	57	
15	60	38	49														100	44	72	
16	51	34	43														100	42	71	
17	45	32	39														100	52	76	
18	55	35	45	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	76	28	52	
19	64	40	52	60	40	50	51	48	49	823	7	.83	0	N-D			64	20	42	
20	53	32	43														100	36	68	
21	59	32	46														91	29	60	
22	47	30	39														100	45	73	
23	51	28	40														100	52	76	
24	35	28	32														100	69	85	
25	37	27	32														100	55	78	
26	36	25	31	56	36	46	51	42	56	1412	9	.92	5	N-D			100	69	85	
27	33	24	29														100	69	85	
28	35	20	28														100	28	64	
29	28	13	21	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	71	86	
30	32	07	20	38	34	36	42	40	41	573	6	1.90	24	N-D	17	14	100	64	82	
31																				
Month Mean	72	07	44	71	34	50	60	40	50	4916	7	3.65					100	16	61	
Month Mean	55	32	41	59	42												87	36		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hygrograph (Hair) ①	Av. of Max & Min					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%  
 at 11-13" = 9%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
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Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month October Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture % Dry Wt.			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						5-7"	11-13"				
1	28	17	23														100	86	93	
2	32	13	23														100	70	85	
3	34	10	22														100	68	84	
4	46	21	34														100	44	72	
5	54	21	38														100	18	59	
6	53	37	45														50	14	32	
7	39	20	30														100	40	70	
8	40	19	30														82	18	50	
9	42	29	36														100	34	67	
10	38	30	34	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	64	82	
11	51	33	42	35	33	34	39	36	38	1872	7	.70	14	N-D			90	34	62	
12	52	28	40														100	36	68	
13	44	20	32														100	14	57	
14	45	32	39														56	36	46	
15	53	32	43														56	18	37	
16	46	16	31	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	26	63	
17	52	23	38	35	33	34	37	36	36	1202	8	.60	14	N-D			38	04	21	
18	58	35	47														16	06	11	
19	57	27	42														36	10	23	
20	50	30	40														100	30	65	
21	48	32	40														44	24	34	
22	39	30	35														100	31	66	
23	44	35	40	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	52	76	
24	52	36	44	43	33	38	39	36	37	2099	13	.20	9	N-D			76	36	56	
25	56	35	46														50	23	37	
26	42	19	31														100	26	63	
27	54	33	44																	
28	40	26	33																	
29	26	15	21																	
30	23	09	16	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
31	52	14	33	44	33	39	40	36	38	1067	6	1.00	17	N-D	11	14	100	29	65	
Month Mean	58	09	35	44	33	36	40	36	37	6240	9	2.50					100	04	57	
Month Mean	45	25	30	39	33	38	38	36	37								81	33		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hygrograph (Hair) ①	Av. of Max & Min					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%  
 at 11-13" = 9%

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Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month November Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture		Relative Humidity			
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Wt.		Max	Min	Mean	
				Max	Min	Mean	Max	Min	Mean						5-7"	11-13"				
1	50	22	36														90	24	57	
2	54	22	38														88	15	52	
3	38	27	33														100	60	80	
4	29	-01	14														100	37	69	
5	12	-02	05														100	40	70	
6	31	12	22														46	18	32	
7	35	23	29	35	30	33	35	33	35	2022	12	00	12	N-D		100	28	64		
8	35	23	29														61	26	44	
9	43	28	36														38	18	28	
10	40	16	28														100	29	65	
11	38	26	32														44	24	34	
12	40	29	35														28	20	24	
13	30	-02	14														75	06	41	
14	37	18	28	32	25	29	34	32	33	2826	17	20	11	N-D		13	02	08		
15	35	25	30														34	13	24	
16	36	20	28														46	24	35	
17	42	28	35														38	16	27	
18	50	28	39														26	06	16	
19	43	25	34														44	09	27	
20	37	21	29														50	19	35	
21	39	20	30	32	26	29	33	32	32	2558	15	00	10	N-D		100	18	59		
22	26	20	23														96	50	73	
23	32	22	27														100	76	88	
24	33	26	30														100	45	73	
25	32	07	20														100	36	68	
26	10	01	06														100	68	84	
27	14	01	08														91	51	71	
28	34	14	24														56	15	36	
29	24	16	20														54	33	44	
30	30	20	25	31	24	27	32	30	31	4124	19	75	16	N-D	16	24	53	35	44	
31																				
Month	54	-02	26	35	24	29	36	30	33	11530	16	95					100	02	49	
Month Mean	34	18		32	26		34	32									69	29		
Key	Thermograph (Bourdon Tube)	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge	Snow Stake	Utah Tube	Oven-Drying Method	Hygrograph (Hair)	Av. of Max & Min				

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 5-7" = 5%  
at 11-13" = 9%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month December Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture		Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Wt.		Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						5-7"	11-13"			
1	36	23	30														52	31	42
2	49	32	41														34	12	23
3	45	26	36														57	09	33
4	26	02	14														100	24	62
5	23	01	12	32	22	27	32	27	29	1630	14	15	N-D	N-D		79	34	57	
6	37	19	28														49	11	30
7	37	27	32														39	16	28
8	37	18	28														45	14	30
9	40	27	34														41	12	27
10	33	21	27														100	41	71
11	34	20	27														100	20	60
12	39	14	27	30	21	26	31	26	28	2391	14	00	14	N-D	15	15	60	04	32
13	29	12	21														90	22	56
14	29	06	18														100	43	72
15	44	05	25														60	08	34
16	44	14	29														100	30	65
17	42	12	27														100	20	60
18	40	21	31														58	24	41
19	30	22	26														100	18	59
20	38	24	31														27	17	22
21	38	18	28														100	10	55
22	26	10	18	30	22	26	30	27	29	1162	5	00	14	N-D		100	64	82	
23	36	18	27														67	14	41
24	42	25	34														78	30	54
25	40	26	33														80	38	59
26	27	15	21														100	70	85
27	20	11	16														100	34	67
28	24	13	19														74	13	44
29	22	11	17														79	24	52
30	35	10	23														50	08	29
31	32	04	18	31	21	26	31	26	29	2078	10	00	14	N-D	13	N-D	100	27	64
Month	49	01	26	32	21	26	32	26	29	7261	10	15					100	04	49
Month Mean	35	16		31	21		31	27									75	24	
Key	Thermograph (Bourdon Tube)	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge	Snow Stake	Utah Tube	Oven-Drying Method	Hygrograph (Hair)	Av. of Max & Min			

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 5-7" = 5%  
at 11-13" = 9%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month January Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max	Min	Mean
1	11	-01	05															100	64	82
2	05	-04	01															82	64	73
3	13	-05	04															96	52	74
4	20	00	10															84	30	57
5	14	02	08															86	50	68
6	24	15	20															100	46	73
7	24	15	20															100	86	93
8	36	25	31															88	35	62
9	37	28	33	27	13	20	28	22	25	332	14	.25	15	N-0			72	35	54	
10	38	26	32															65	27	46
11	34	19	27															100	45	73
12	35	14	25															100	54	77
13	30	07	19															100	70	85
14	23	10	17															100	68	84
15	28	04	16															100	48	74
16	14	-01	07	30	22	26	29	26	27	1264	8	.15	18	N-0			100	74	87	
17	06	-10	-02															100	100	100
18	10	-16	-03															100	70	85
19	06	-06	00															96	69	83
20	16	05	11															100	70	85
21	26	14	20															74	42	58
22	28	18	23															100	36	68
23	22	14	18	26	20	23	28	24	26	1742	10	.60	20	N-D			100	59	80	
24	34	22	28															90	48	69
25	40	24	32															94	42	68
26	25	18	22															100	78	89
27	30	15	23															100	62	81
28	28	10	19															100	21	61
29	43	26	35															32	17	25
30	48	20	34															51	10	31
31	26	15	21	31	21	26	30	24	27	2676	14	.25	21	N-D	N-D	8	12	100	50	75
Month Mean	48	-16	18	31	13	24	30	22	26	9003	12	1.25						100	10	72
Month Mean	25	10		28	19		29	24										91	52	

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%  
 ② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month February Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max	Min	Mean
1	25	14	20															100	50	75
2	28	16	22															100	54	77
3	25	14	20															100	64	82
4	29	00	15															100	31	66
5	29	00	15															100	34	67
6	24	15	20	30	23	26	29	26	27	1035	7	.20	24	N-D			100	46	73	
7	37	20	29															100	35	68
8	31	26	29															100	82	91
9	27	13	20															100	76	88
10	23	11	17															100	63	82
11	23	03	13															100	53	77
12	23	08	16															100	30	65
13	30	15	23	29	20	25	29	22	26	2758	16	.50	25	N-0			100	38	69	
14	18	06	12															100	46	73
15	18	06	12															100	68	84
16	14	01	08															100	76	88
17	11	00	06															90	55	73
18	22	-02	10															100	16	58
19	27	05	16															100	54	77
20	18	-06	06	27	18	23	27	23	25	1463	9	.50	31	N-0			100	100	100	
21	20	05	13															100	87	94
22	09	-11	-01															100	100	100
23	06	-17	-06															100	97	99
24	06	-25	-10															100	68	84
25	10	-08	01															100	68	84
26	09	-09	00															100	79	90
27	12	-02	05															100	80	90
28	10	-01	05															100	84	92
29	20	-08	06	25	19	22	26	24	25	1314	6	1.25	37	N-D	4	18	N-D	100	68	84
30																				
31																				
Month Mean	37	-25	12	30	18	24	29	22	26	6570	9	2.45						100	16	81
Month Mean	20	03		28	20		28	23										100	62	

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%  
 ② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month March Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	27	01	14															100	73	87
2	12	-02	05															100	70	85
3	19	04	12															100	84	92
4	26	18	22															100	90	95
5	29	19	24	26	22	24	27	25	26	946	8	.85	49	N-D				100	84	92
6	32	24	28															100	72	86
7	38	29	34															100	48	74
8	33	22	28															100	48	74
9	32	22	27															99	38	69
10	24	07	16															100	44	72
11	30	11	21															53	23	38
12	29	10	20	28	22	25	28	25	27	2370	14	.50	43	N-D				100	40	70
13	33	10	22															100	39	70
14	33	08	21															100	51	76
15	15	04	10															100	70	85
16	16	03	10															100	40	70
17	21	04	13															92	62	77
18	30	19	25															100	64	82
19	37	23	30	27	23	25	27	24	26	1838	11	1.10	50	N-D				100	54	77
20	46	25	36															100	43	72
21	44	20	32															100	34	67
22	43	29	36															57	34	46
23	43	24	34															93	30	62
24	40	18	29															100	35	68
25	45	28	37															63	41	52
26	48	34	41	33	25	29	32	28	30	1647	10	.00	43	N-D				60	34	47
27	50	35	43															62	33	48
28	42	19	31															100	54	77
29	28	14	21															99	46	73
30	44	23	34															58	32	45
31	33	15	24	39	31	35	32	32	32	1670	15	.35	44	N-D	21	14	17	100	50	75
Month	50	-02	25	39	22	28	32	24	28	8471	11	2.80						100	23	71
Month Mean	33	17		31	25		29	27										92	50	

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%  
② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month April Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	24	11	18															100	62	81
2	25	11	18															94	57	76
3	39	23	31															72	46	59
4	43	29	36															70	43	57
5	47	33	40															54	34	44
6	51	35	43															44	30	37
7	41	28	35															100	38	69
8	44	27	36															100	40	70
9	53	27	40	42	28	35	32	29	31	2221	10	N-D	38	N-D				98	33	66
10	57	32	45															86	23	55
11	47	28	38															65	39	52
12	41	28	35															100	54	77
13	43	26	35															88	32	60
14	49	27	38															65	30	48
15	46	27	37															100	33	67
16	31	11	21	43	32	38	35	32	33	1362	8	.40	35	N-D	21	16	16	100	48	74
17	39	09	24															73	26	50
18	50	31	41															40	23	32
19	53	23	38															100	22	61
20	47	20	34															85	34	60
21	58	38	48															42	17	30
22	56	40	48															30	21	26
23	52	36	44	50	31	41	39	29	34	2136	12	.10	28	N-D				73	20	47
24	40	18	29															100	41	71
25	31	15	23															88	36	63
26	37	13	25															100	39	70
27	37	12	25															100	57	79
28	39	18	29															100	52	76
29	23	10	17															100	100	100
30	38	03	21	50	32	41	39	32	36	922	6	1.85	45	N-D	13	13	13	100	36	68
31																				
Month	58	03	33	50	28	38	39	29	33	6641	9	2.35						100	17	61
Month Mean	43	23		46	31		36	30										82	39	

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%  
② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
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Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month May Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	41	13	27														100	35	68	
2	49	25	37														100	90	61	
3	45	26	31														100	39	70	
4	43	21	32														100	40	70	
5	30	20	25														100	100	100	
6	38	15	27														100	54	77	
7	50	30	40	33	31	32	33	31	32	1.149	7	1.85	40	N-D		83	36	60		
8	53	30	42													100	30	65		
9	53	31	42													100	34	67		
10	55	29	42													100	32	66		
11	56	29	43													100	30	65		
12	64	30	47													100	28	64		
13	61	35	48													84	22	53		
14	51	30	41	50	32	41	40	31	35	738	5	.00	25	N-D	23	17	17			
15	53	30	42													100	48	74		
16	50	31	41													100	40	70		
17	51	29	40													100	38	69		
18	46	23	35													100	37	69		
19	27	19	23													100	84	92		
20	40	20	30													100	35	68		
21	61	35	48	49	33	41	41	34	38	1268	7	1.30	19	N-D		54	18	36		
22	60	30	45													75	22	49		
23	59	34	47													100	20	60		
24	50	32	41													100	40	70		
25	49	33	41													49	23	36		
26	55	30	43													100	26	63		
27	58	30	44													100	30	65		
28	53	33	43													100	31	66		
29	54	31	43													100	48	74		
30	62	30	46													100	52	76		
31	60	33	47	55	35	45	46	35	40	1364	6	.25	0	N-D		56	28	42		
Month Mean	54	13	39	55	31	40	46	31	36	4519	6	3.40				100	18	66		
Month Mean	61	28		47	33		40	33								93	38			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8' Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage :  
 at 0-2" = 4%  
 at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month June Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	64	42	53														85	36	61	
2	64	38	51														100	30	65	
3	66	42	54														62	24	43	
4	68	38	53														100	30	65	
5	54	34	44														100	71	86	
6	54	34	44														100	69	85	
7	60	32	46	64	44	54	53	44	49	714	4	.40	0	N-D		100	40	70		
8	50	37	44														100	74	87	
9	58	33	46														100	33	67	
10	54	34	44														100	54	77	
11	52	33	43														100	45	73	
12	48	31	40														100	49	75	
13	61	31	46														100	20	60	
14	62	44	53	61	41	51	52	45	48	996	6	.73	0	N-D	14	14	18			
15	60	39	50														100	37	69	
16	59	40	50														83	35	59	
17	68	43	56														100	27	64	
18	67	40	54														100	25	63	
19	69	39	54														100	25	63	
20	70	38	54														100	19	60	
21	63	40	52	70	43	56	56	46	51	1360	9	.72	0	N-D	10	8	17			
22	67	40	54														100	20	60	
23	50	32	41														100	68	84	
24	57	32	45														100	42	71	
25	66	34	50														100	24	62	
26	68	37	53														82	24	53	
27	68	39	54														46	19	33	
28	73	48	61														100	20	60	
29	75	42	59														100	21	61	
30	67	40	54	75	63	69	61	52	57	1257	6	1.30	0	N-D	5	9	13			
31																				
Month Mean	75	31	50	75	41	57	61	44	51	4327	6	3.15				100	19	64		
Month Mean	62	38		67	47		55	47								93	35			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8' Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage :  
 at 0-2" = 4%  
 at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
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Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month July Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches Total Water Cont.		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Depth	Utah Tube	Oven-Drying Method			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	74	39	57														100	17	59	
2	74	41	58														100	24	62	
3	58	34	46														100	53	77	
4	55	33	44														100	69	85	
5	49	36	43														100	78	89	
6	54	33	44	74	47	60	62	52	57	526	4	.74	0	N-D	13	15	16	100	77	89
7	56	35	46															100	62	81
8	66	39	53															100	27	64
9	70	39	55															100	26	63
10	69	39	54															100	34	67
11	60	42	51															100	64	82
12	59	37	48															100	56	78
13	58	37	48	70	46	58	57	51	54	760	4	.83	0	N-D	6	8	11	100	52	76
14	66	35	51																	
15	64	40	52																	
16	67	38	53																	
17	64	36	50																	
18	62	37	50																	
19	68	33	51	70	47	59	56	51	54	736	5	.29	0	N-D	5	12	13			
20	71	33	52																	
21	74	40	57																	
22	72	43	58																	
23	70	39	55																	
24	68	46	57																	
25	73	38	56																	
26	75	39	57	75	50	63	60	55	58	828	5	.16	0	N-D	5	5	9			
27	77	46	62																	
28	73	52	63																	
29	69	41	55																	
30	68	36	52																	
31	72	50	61	72	53	63	60	57	58	706	6	.35	0	N-D	4	5	7	N-D	N-D	N-D
Month Mean	77	33	53	75	46	60	62	51	56	3556	5	2.37						100	24	75
Key	Thermograph (Bourdon Tube)	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge	Snow Stake	Utah Tube	Oven-Drying Method			Hydrograph (Hair)	Av. of Max. & Min.			

① Instruments located in standard Weather Bureau Shelter

③ Permanent wilting percentage:

② Rim of gauge 40 inches above ground

at 0-2" = 4%

at 5-7" = 5%

at 11-13" = 9%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month August Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches Total Water Cont.		Soil Moisture % Dry Weight			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Depth	Utah Tube	Oven-Drying Method			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"				
1	71	48	60																		
2	73	49	61																		
3	74	42	58																		
4	77	50	64																		
5	71	42	57																		
6	73	42	58																		
7	72	41	57																		
8	69	39	54																		
9	46	35	41	76	53	65	62	56	59	1183	6	.59	0	N-D							
10	61	33	47																		
11	64	40	52																		
12	67	42	55																		
13	68	44	56																		
14	65	41	53																		
15	71	38	55																		
16	68	31	50																		
17	52	34	42	67	45	56	60	54	57	1172	6	.50	0	N-D	8	N-D	11	62	38	50	
18	61	30	46																		
19	71	35	53																		
20	71	44	58																		
21	72	38	55																		
22	70	46	58																		
23	59	35	47																		
24	62	32	47	72	43	57	60	50	55	1035	6	.00	0	N-D	2	4	9	100	35	68	
25	60	36	48																		
26	68	30	49																		
27	70	50	60																		
28	65	33	49																		
29	68	32	50																		
30	73	32	53																		
31	72	41	57	72	46	59	60	53	56	1129	7	.36	0	N-D	4	8	11	72	18	45	
Month Mean	77	30	54	76	43	59	62	50	57	4519	6	1.45						100	08	52	
Month Mean	68	39		71	47		60	53										83	22		
Key	Thermograph (Bourdon Tube)	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge	Snow Stake	Utah Tube	Oven-Drying Method			Hydrograph (Hair)	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

③ Permanent wilting percentage:

② Rim of gauge 40 inches above ground

at 0-2" = 4%

at 5-7" = 5%

at 11-13" = 9%

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Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month September Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"				
1	75	53	64															60	27	44	
2	71	49	60															100	38	69	
3	70	42	56															100	30	65	
4	76	44	60															86	20	53	
5	72	48	60															100	26	63	
6	69	42	56															100	24	62	
7	65	42	54	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	26	63	
8	67	36	49	72	49	60	61	55	58	935	5	.90	0	N-D	11	14	9	100	46	73	
9	50	34	42															100	74	87	
10	66	30	48															100	10	55	
11	53	32	43															100	30	65	
12	63	30	47															100	14	57	
13	61	32	47															69	15	42	
14	59	38	49															100	28	64	
15	53	33	43															100	38	69	
16	55	32	44															100	28	64	
17	56	36	46	65	41	53	57	48	52	1021	5	.81	0	N-D	11	14	17	100	40	70	
18	56	33	45															100	26	63	
19	64	34	49															82	18	50	
20	60	45	53															55	18	37	
21	56	30	43															100	34	67	
22	50	27	39															100	55	78	
23	48	31	40															100	30	65	
24	54	35	45	61	40	51	52	46	49	1147	7	.26	0	N-D	13	14	14	53	22	38	
25	63	34	49															84	21	53	
26	55	31	43															100	48	74	
27	61	36	49															52	18	40	
28	61	31	46															81	23	52	
29	51	30	41	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	41	71	
30	59	29	44	60	41	50	50	45	48	829	6	.02	0	N-D	6	11	11	100	16	58	
31																					
Month Mean	76	27	48	72	40	53	61	45	52	3932	6	1.99						100	10	60	
Month Mean	61	36		64	43		55	48										91	30		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 0-2" = 4%      at 11-13" = 9%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%

Data collected for Front Range Ecology Project  
 by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
 and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month October Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	56	40	48															42	36	39
2	55	26	46															62	27	45
3	56	32	44															54	20	37
4	57	40	49															42	24	33
5	57	34	46															48	20	39
6	58	29	44															66	19	43
7	62	35	49	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		68	21	45
8	63	36	50	58	43	51	51	46	48	1381	7	.05	0	N-D				68	24	46
9	54	30	42															100	47	74
10	53	30	42															100	40	70
11	50	31	41															100	42	71
12	47	27	37															82	26	54
13	44	26	35															100	30	65
14	30	19	35	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	90	95
15	32	17	35	55	37	46	50	42	46	780	5	.05	10	N-D				100	64	82
16	52	18	36															100	36	68
17	39	27	33															100	51	76
18	31	21	26															100	100	100
19	39	14	27															100	40	70
20	46	31	29															66	28	47
21	49	34	42	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		56	24	40
22	52	35	44	37	34	36	42	38	40	1327	8	.80	10	N-D				53	22	38
23	54	29	42															81	16	49
24	54	32	43															49	17	33
25	51	24	38															84	27	55
26	57	33	45															62	16	39
27	50	28	39															100	39	70
28	41	26	34															100	40	70
29	26	09	18															100	56	78
30	30	09	20															78	10	44
31	31	29	30	43	33	38	39	35	37	2191	10	.15	9	N-D	N-D	N-D	N-D	80	14	47
Month Mean	63	09	38	58	33	43	51	35	43	5679	8	1.05						100	10	57
Month Mean	48	28		48	37		45	40										79	34	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 0-2" = 4%      at 11-13" = 9%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%

Data collected for Front Range Ecology Project  
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Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month November Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches			Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min.	Mean	
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"				
1	37	27	31															94	46	70	
2	41	25	33															60	17	39	
3	47	32	40															100	24	62	
4	36	18	27	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	52	76	
5	48	20	34	33	32	33	36	34	35	1814	16	.10	7	N-D				70	08	39	
6	44	19	32															90	38	64	
7	41	23	32															100	48	74	
8	25	06	16															100	77	89	
9	27	05	16															100	23	62	
10	34	25	30															36	18	27	
11	41	24	33	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	38	16	27	
12	43	22	33	34	32	33	36	35	35	1632	10	.80	13	N-D				66	24	45	
13	42	18	30															65	24	45	
14	42	22	32															67	14	41	
15	22	09	16															100	47	74	
16	27	13	20															85	36	61	
17	30	20	25															65	34	50	
18	42	25	34															33	08	21	
19	30	10	20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	30	65	
20	40	08	24	32	24	28	35	N-D	N-D	2497	13	.10	12	N-D				97	04	51	
21	48	19	34															100	18	59	
22	34	20	27															100	14	57	
23	37	24	31															29	15	22	
24	43	32	38															38	20	29	
25	54	31	43															44	12	28	
26	46	26	36															41	13	27	
27	33	10	22															100	36	68	
28	20	06	13															94	18	56	
29	36	18	27	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	47	17	32	
30	35	21	28	32	24	28	32	30	31	3159	13	.40	11	N-D	N-D	N-D	N-D	88	30	59	
31																					
Month Mean	54	05	28	34	24	30	36	30	34	9102	13	1.40						100	04	50	
Month Mean	38	19		33	28		35	33										75	26		
Key	Thermograph (1) (Bourdon Tube)	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge (2)	Snow Stake	Utah Tube	Oven-Drying Method (3)	Hydrograph (Hair) (1)	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 0-2" = 4%  
 at 5-7" = 5%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month December Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches			Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min.	Mean	
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"				
1	48	24	36															44	14	29	
2	46	29	38															90	25	58	
3	44	24	34															100	36	68	
4	24	09	17															100	37	69	
5	10	-01	05															100	76	88	
6	19	-02	09															100	67	84	
7	34	04	19															100	58	79	
8	36	06	21															100	54	77	
9	44	12	28	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	27	64	
10	32	04	18	32	27	30	32	29	31	1527	6	1.50	21	N-D				100	35	68	
11	41	07	24															100	43	72	
12	42	02	22															100	20	60	
13	44	04	24															100	16	58	
14	42	06	24															100	10	55	
15	25	13	19															89	14	52	
16	27	15	21	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	87	09	48	
17	24	16	20	30	22	26	32	27	29	1370	8	.00	20	N-D				100	82	91	
18	32	20	26															100	61	80	
19	34	12	23															100	39	70	
20	19	10	15															100	58	79	
21	18	14	16															100	60	80	
22	26	16	21															100	82	91	
23	36	22	29	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	12	59	
24	44	33	39	27	22	25	29	25	27	3145	19	.60	24	N-D				78	28	53	
25	33	20	27															100	48	74	
26	28	14	21															100	98	99	
27	22	-07	08															100	33	67	
28	29	-08	11															50	23	37	
29	27	14	21															93	34	64	
30	35	12	24	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	86	25	56	
31	30	09	20	28	20	24	30	26	28	1802	11	.20	24	N-D	N-D	N-D	N-D	100	21	61	
Month Mean	48	-08	22	32	20	26	32	25	29	7844	11	2.30						100	09	67	
Month Mean	32	11		29	23		31	27										94	40		
Key	Thermograph (1) (Bourdon Tube)	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge (2)	Snow Stake	Utah Tube	Oven-Drying Method (3)	Hydrograph (Hair) (1)	Av. of Max. & Min.					

Data collected for Front Range Ecology Project  
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and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 ② Rim of gauge 40 inches above ground      at 0-2" = 4%  
 at 5-7" = 5%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month January Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip Inches Water	Snow, Inches		Soil Moisture			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean					0-2"	5-7"	11-13"				
1	10	5	8														100	55	78	
2	14	6	10														73	34	54	
3	34	9	22														44	17	30	
4	32	17	24														27	10	18	
5	41	4	22														52	10	31	
6	40	5	22														73	25	49	
7	40	5	22	26	14	20	27	20	24	1687	10	.00	23	ND		100	32	66		
8	37	26	32														37	20	28	
9	44	25	34														27	10	18	
10	32	11	22														90	27	58	
11	42	8	25														55	13	34	
12	39	15	27														40	11	26	
13	26	11	18														100	33	66	
14	21	12	16	29	17	23	28	22	25	1571	9	.00	21	ND		100	82	91		
15	34	20	27														100	32	66	
16	36	29	32														49	10	30	
17	43	29	36														14	9	12	
18	32	-4	14														100	12	56	
19	22	0	11														82	11	46	
20	22	14	18														56	22	39	
21	35	21	28	29	20	24	28	25	26	2854	17	.10	24	ND		28	18	23		
22	34	23	28														29	22	26	
23	43	16	30														53	12	32	
24	35	11	23														73	26	50	
25	31	3	17														100	41	70	
26	16	-10	3														100	79	90	
27	25	-12	6														100	42	71	
28	26	-5	10														92	25	58	
29	28	11	20														47	17	32	
30	37	23	30														84	19	52	
31	47	28	38	29	22	26	28	25	26	2793	12	.80	26	ND		34	14	24		
Month	47	-12	22	29	14	23	28	20	25	8905	12	.90				100	9	46		
Month Mean	32	12		28	18		28	23								66	26			

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 11-13" = 9%  
at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month February Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip Inches Water	Snow, Inches		Soil Moisture			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean					0-2"	5-7"	11-13"				
1	31	18	24														100	25	63	
2	28	15	22														84	38	61	
3	30	12	21														100	47	74	
4	21	7	14	30	22	26	29	25	27	1034	11	.00	27	ND		100	48	74		
5	27	-6	10														100	73	86	
6	29	-7	11														100	36	68	
7	28	-5	12														100	42	71	
8	34	10	22														93	15	54	
9	28	19	24														88	60	74	
10	37	24	30														97	64	80	
11	46	34	40	30	23	28	29	24	26	1756	10	.20	28	ND		66	30	48		
12	44	19	32														100	18	59	
13	32	19	26														100	30	65	
14	35	21	28														58	38	48	
15	44	20	32														56	14	35	
16	42	25	34														100	31	66	
17	25	15	20														100	83	92	
18	26	0	13	31	27	29	31	30	30	1977	12	.20	31	ND		100	44	72		
19	29	5	17														90	17	54	
20	34	11	22														85	34	60	
21	43	18	30														84	16	50	
22	36	14	25														100	16	58	
23	17	0	8														100	62	81	
24	26	4	15														82	45	64	
25	29	17	23														100	54	77	
26	17																100	87	94	
27																	100	35	68	
28	24	-10	7	31	24	28	30	28	29	2248	9	1.15	41	8	ND	ND	100	50	75	
29																				
30																				
31																				
Month	46	-10	22	31	22	27	31	24	28	7015	10	1.55					100	14	67	
Month Mean	31	12		30	24		30	27									92	41		

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 11-13" = 9%  
at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month March Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	30	10	20																	
2	38	20	29																	
3	26	11	18																	
4	28	3	16	30	24	27	30	27	28	1279	13	.40	48	ND				100	33	66
5	26	11	18															100	49	74
6	34	13	24															100	35	68
7	16	9	12															99	54	76
8	30	7	18															90	17	54
9	42	17	30															42	12	27
10	34	20	27															96	28	62
11	35	18	26	31	19	25	30	24	27	1748	10	.20	41	ND			100	43	72	
12	21	9	15															94	49	72
13	38	19	28															88	14	51
14	42	27	34															93	20	56
15	45	26	36															100	26	63
16	43	25	34															100	50	75
17	28	20	24															100	80	90
18	21	15	18	32	24	28	31	28	30	1636	10	1.10	50	ND			100	88	94	
19	23	14	18															100	92	96
20	36	14	25															100	43	72
21	25	11	18															94	34	64
22	38																	76	23	50
23	46																	84	28	56
24	44																	100	38	69
25	43	21	32	32	30	31	32	31	32	1383	8	.50	49	ND			100	24	62	
26	27	10	18															100	47	74
27	29	16	22															100	56	78
28	16	2	9															100	87	94
29	31	0	16															100	70	85
30	33	10	22															100	45	72
31	37	6	22	32	32	32	32	30	31	753	5	.50	53	12	17	11	15	100	46	73
Month	46	0	23	32	19	29	32	24	30	6799	9	2.70						100	12	70
Month Mean	32	14		31	26		31	28										95	44	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 11-13" = 9%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month April Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	38	22	30															100	44	72
2	37	27	32															100	68	84
3	45	30	38															90	38	64
4	40	11	26															100	44	72
5	29	6	18															100	57	78
6	18	9	14															100	83	92
7	26	7	16															100	92	96
8	28	10	19	32	31	32	33	31	32	1621	8	1.60	54	ND			100	43	72	
9	30	16	23															100	48	74
10	31	18	24															100	88	94
11	28	15	22															100	36	68
12	47	21	34															97	30	64
13	35	20	28															100	38	69
14	21	0	10															100	44	72
15	26	8	17	32	32	32	32	31	32	1753	11	1.00	63	ND			100	57	78	
16	32	19	26															100	64	82
17	47	21	34															100	27	64
18	52	34	43															42	20	31
19	54	39	46															67	14	40
20	40	26	33															100	28	64
21	43	24	34															100	22	61
22	53	24	38	32	32	32	32	30	31	1646	10	.40	63	ND			83	11	47	
23	38	21	30															100	31	66
24	28	15	22															100	60	80
25	29	13	21															100	46	73
26	31	19	25															100	48	74
27	40	22	31															100	30	65
28	46	22	34															100	19	60
29	52	30	41															44	14	29
30	52	34	43	38	32	35	33	32	32	1787	9	.80	48	ND	19	18	17	100	22	61
31																				
Month	54	0	28	38	31	33	33	30	32	6807	9	3.80						100	11	68
Month Mean	37	19		34	32		32	31										94	42	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 11-13" = 9%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month May Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	37	28	32															100	40	70
2	53	30	42															100	19	60
3	34	30	32															100	100	100
4	36	28	32															100	64	82
5	36	25	30															100	40	70
6	40	22	31	45	32	38	35	31	33	635	4	.50	45	ND			80	26	53	
7	35	25	30															100	42	71
8	39	23	31															100	35	68
9	56	32	44															48	20	34
10	61	36	48															42	10	26
11	63	44	54															17	5	11
12	53	31	42															100	13	56
13	31	22	26															100	76	88
14	40	25	32	51	32	42	40	32	36	1727	9	2.20	48	ND			100	44	72	
15	44	29	36															100	44	72
16	51	28	40															100	24	62
17	50	28	39															100	16	58
18	58	29	44															100	14	57
19	61	32	46															100	14	57
20	55	34	44															100	26	63
21	55	33	44	53	33	43	44	33	38	1050	6	.60	28	ND			100	30	65	
22	53	32	42															100		
23	59	33	46															100	18	59
24	57	35	46															100	32	66
25	41	30	36															100	81	90
26	54	28	41															100	46	73
27	58	33	46															100	20	60
28	63	33	48															100	22	61
29	58	34	46															100		
30	61	34	48															100	17	58
31	59	34	46	58	37	48	49	40	44	1110	5	.40	24	ND	17	16	18	100	32	66
Month	63	22	40	58	32	43	49	31	38	4522	6	3.70						100	5	63
Month Mean	50	30		52	34		42	34										93	33	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydragraph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4%  
at 11-13" = 9%  
at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month June Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture			Relative Humidity			
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max	Min	Mean	
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"				
1	50	34	42															100	69	84	
2	49	35	42															100	70	85	
3	41	33	37															100	64	82	
4	51	33	42															100	40	70	
5	54	32	43															100	30	65	
6	55	35	45															100	32	66	
7	60	38	49															100	34	67	
8	63	40	52															100	25	62	
9	68	36	52	58	36	47	48	38	43	1043	5	1.86	0	0			100	10	55		
10	69	41	55															87	22	54	
11	66	41	54															100	27	64	
12	67	38	52															100	18	59	
13	62	36	49															100	29	64	
14	50	36	43															100	74	87	
15	39	32	36															100	68	84	
16	55	31	43	60	40	50	51	45	48	706	4	.85	0	0			100	40	70		
17	65	37	51															100	22	61	
18	67	36	52															100	22	61	
19	60	39	50															100	42	71	
20	64	34	49															100	28	64	
21	72	39	56															84	13	48	
22	69	36	52	63	45	54	54	48	51	670	5	.76	0	0			100	12	56		
23	70	37	54															100	18	59	
24	63	40	52															100	34	67	
25	64	42	53															100	29	64	
26	68	41	54															62	20	41	
27	71	44	58															100	23	62	
28	71	46	58															70	27	48	
29	75	45	60															68	18	43	
30	70	50	60	68	47	58	56	51	54	1104	6	.23	0	0	7	11	16	100	38	69	
31																					
Month	75	31	50	68	36	52	56	38	49	3523	5	3.70						100	10	64	
Month Mean	62	38		62	42		52	46										96	33		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydragraph (Hair) ①	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage:  
at 0-2" = 4%  
at 11-13" = 9%  
at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month July Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max.	Min.	Mean
1	68	44	56														100	28	64	
2	68	38	53														100	25	62	
3	71	45	58														69	25	47	
4	70	47	58														100	31	66	
5	65	44	54														100	37	68	
6	67	36	52														100	35	68	
7	57	41	54	72	48	60	59	53	56	812	5	.36	0	0			100	43	72	
8	63	39	51														100	39	70	
9	64	33	48														100	32	66	
10	65	41	53														100	24	62	
11	55	38	46														100	70	85	
12	52	36	44														100	71	86	
13	60	36	48														100	42	71	
14	62	41	52	67	48	58	59	52	56	634	4	1.39	0	0	12	13	ND	100	36	68
15	57	48	58															79	31	55
16	70	37	54															96	24	60
17	73	45	59															83	19	51
18	69	46	58															95	27	61
19	68	43	56															89	27	58
20	55	39	47															100	48	74
21	46	34	40	70	48	59	59	51	55	1027	6	1.23	0	0				100	41	70
22	62	35	48															100	31	66
23	69	41	55															100	45	72
24	73	41	57															100	19	60
25	70	45	58															100	39	70
26	69	46	58															100	41	70
27	72	42	57															100	31	66
28	73	44	58															100	40	70
29	72	47	60															100	34	67
30	66	47	56															90	21	56
31	67	46	56	68	44	56	58	50	54	1241	5	.86	0	0	18	18	16	100	45	72
Month	73	33	54	72	44	58	59	50	55	3714	5	3.84						100	19	66
Month Mean	66	41	X	69	47	X	59	52	X									97	36	X

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage :  
 at 0-2" = 4%      at 11-13" = 9%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month August Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max.	Min.	Mean
1	59	39	49														100	70	85	
2	60	41	50														100	77	88	
3	68	41	54														100	31	66	
4	67	41	54	67	50	58	57	ND	ND	320	3	.77	0	0				100	17	58
5	71	43	57															100	21	60
6	73	44	58															93	27	60
7	71	47	59															100	36	68
8	65	43	54															100	35	68
9	64	42	53															100	27	64
10	64	38	51	70	51	60	60	55	58	741	5	.30	0	0	14	15	18	100	40	70
11	64	36	50															100	46	73
12	63	42	52															100	45	72
13	59	38	48															100	56	78
14	63	38	50															100	47	74
15	65	37	51															100	41	70
16	64	39	52															100	40	70
17	62	43	52	65	47	56	56	52	54	605	4	.40	0	0				100	53	76
18	66	37	52															100	36	68
19	63	42	52															100	50	75
20	71	35	53															100	20	60
21	60	43	52															100	47	74
22	61	40	50															100	48	74
23	68	32	50															100	23	62
24	68	38	53	69	49	59	58	53	56	734	4	.18	0	0	7	11	16	100	33	66
25	63	42	52															100	51	76
26	62	45	54															100	41	70
27	63	43	53															100	31	66
28	67	42	54															100	27	64
29	66	42	54															100	31	66
30	60	43	52															100	59	80
31	58	44	51	65	48	56	56	52	54	853	5	1.30	0	0	11	7	18	79	47	63
Month	73	32	52	70	47	58	60	52	55	3253	4	2.95						100	17	70
Month Mean	64	41	X	67	49	X	57	53	X									99	40	X

① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage :  
 at 0-2" = 4%      at 11-13" = 9%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month September Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	61	42	52														91	35	63	
2	52	26	39														100	41	70	
3	33	22	28														100	73	86	
4	40	23	32														100	61	80	
5	49	32	40														100	41	70	
6	61	33	47														100	19	60	
7	63	32	48														100	23	62	
8	68	36	52	59	37	48	53	42	48	1490	8	1.00	0	0		100	30	65		
9	60	36	48														100	41	70	
10	53	39	46														100	35	68	
11	58	32	45														100	25	62	
12	55	28	42														100	25	62	
13	43	24	34														100	33	66	
14	39	24	32														100	43	72	
15	63	28	46														100	21	60	
16	66	36	51	59	39	49	51	45	48	903	5	.08	0	0	6	15	19	100	36	68
17	62	42	52														100	31	66	
18	61	37	49														100	37	68	
19	49	31	40														100	39	70	
20	40	30	35														100	53	76	
21	43	28	36														100	61	80	
22	35	27	31														100	66	83	
23	39	27	33	58	36	47	55	40	48	1137	6	2.20	12	ND		100	50	75		
24	29	19	24														100	30	65	
25	52	22	36													75	10	42		
26	46	34	40													100	37	68		
27	50	25	38													100	26	63		
28	56	29	42													96	23	60		
29	46	19	34													100	37	68		
30	35	17	26	46	34	40	41	38	40	1629	10	1.90	7	ND	20	15	13	80	19	50
31																				
Month	68	17	40	59	34	46	55	38	46	5159	7	5.18				100	10	67		
Month Mean	50	29		56	37		50	41								98	37			
Key	Thermograph (Bourdon Tube) ①			Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydragraph (Hair) ①		Av. of Max. & Min.		

① Instruments located in standard Weather Bureau Shelter

③ Permanent wilting percentage:

② Rim of gauge 40 inches above ground

at 0-2" = 4%

at 5-7" = 5%

at 11-13" = 9%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month October Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	34	18	26														100	33	66	
2	43	23	33														51	16	34	
3	53	29	41														63	6	34	
4	55	35	45														44	16	30	
5	54	40	47														32	17	24	
6	52	41	46														30	21	26	
7	57	28	42	47	34	40	41	36	38	1575	10	.40	7	ND		100	22	61		
8	35	25	30														100	100	100	
9	51	25	38														100	42	71	
10	32	21	26														100	50	75	
11	50	28	39														80	12	46	
12	49	28	38														68	30	49	
13	50	29	40														100	46	73	
14	57	24	40	48	34	41	42	38	40	1360	8	.20	2	ND	15	14	19	100	24	62
15	63	29	46														74	15	44	
16	63	30	46														57	15	36	
17	55	34	44														100	33	66	
18	52	25	38														100	16	58	
19	58	37	48														36	7	22	
20	49	29	39														80	27	54	
21	57	29	43	50	36	43	43	39	41	1116	7	.00	0	ND		78	26	52		
22	42	25	34														100			
23	37	24	30																	
24	37	27	32																	
25	44	18	31																	
26	49	29	39																	
27	39	28	34																	
28	38	20	29																	
29																				
30																				
31	50	9	30	47	34	40	43	36	40	2478	10	1.00	8	ND	14	15	18	100	15	58
Month	63	9	38	50	34	41	43	36	40	6529	9	1.60				100	6	52		
Month Mean	49	27		48	34		42	37								78	27			
Key	Thermograph (Bourdon Tube) ①			Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydragraph (Hair) ①		Av. of Max. & Min.		

① Instruments located in standard Weather Bureau Shelter

③ Permanent wilting percentage:

② Rim of gauge 40 inches above ground

at 0-2" = 4%

at 5-7" = 5%

at 11-13" = 9%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month November Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity				
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean		
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"					
1	30	22	39														93	44	68			
2																	100					
3																						
4				35	33	34	36	33	34	1466	16	.20	13	ND								
5																	100	38	69			
6	48	-4	22													ND	08	ND				
7	38	7	22													100	43	72				
8	50	12	32													86	13	50				
9	46	19	32													99	24	62				
10	44	33	38													58	36	47				
11	40	25	32	33	31	32	35	32	34	959	6	.05	7	ND		100	38	69				
12	25	10	18													100	92	96				
13	26	0	13													100	68	84				
14	38	-2	18													100	24	62				
15	31	5	18													100	36	68				
16	37	2	20													100	46	73				
17	36	8	22													100	42	71				
18	28	13	20	33	31	32	34	34	34	785	5	1.25	23	ND		84	26	55				
19	28	6	17														27					
20	36	7	22																			
21	32	7	20													100						
22	23	8	16													100	35	68				
23	36	21	28													93	48	70				
24	38	22	30													70	24	47				
25	37	27	32	32	29	30	34	32	33	2378	14	.00	15	ND		84	27	56				
26	41	23	32													100	57	78				
27	38	9	24													92	44	68				
28	35	21	28													86	41	64				
29	42	21	32													44	16	30				
30	36	26	31	31	28	30	33	30	32	1501	12	.00	14		20	17	18	100	38	69		
31																						
Month	50	-4	25	35	28	32	36	30	33	7089	10	1.50								100	8	65
Month Mean	37	13		33	30		34	32								92	37					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 5-7" = 5%  
at 11-13" = 9%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month December Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity				
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean		
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"					
1	33	24	28														94	27	60			
2	39	27	33														47	16	32			
3	30	18	24														100	32	66			
4	27	9	18														100	32	66			
5	25	15	20														100	48	74			
6	22	8	15														100	56	78			
7	21	7	14														100	18	59			
8	19	-3	8														100	64	82			
9	2	-14	-6	30	24	27	33	29	31	2305	11	.50	20	ND		100	92	96				
10	7	-5	1														100	84	92			
11	0	-10	-5														100	66	83			
12	7	-10	-2														85	36	60			
13	23	4	14														82	44	63			
14	26	4	15														96	42	69			
15	28	11	20														100	45	72			
16	22	8	15	26	21	24	30	24	27	1410	8	.30	19	ND		100	67	84				
17	22	9	16														100	32	66			
18	12	4	8														100	62	81			
19	24	6	15														100	72	86			
20	30	21	26														100	20	60			
21	29	7	18														100	30	65			
22	18	3	10														100	42	71			
23	29	14	22	24	17	20	27	23	25	2872	17	.50	24	ND		58	43	50				
24	37	24	30														50	23	36			
25	37	22	30														100	24	62			
26	23	3	13														100	58	79			
27	9	0	4														88	60	74			
28	16	4	10														100	74	87			
29	22	16	19														100	72	86			
30	21	14	18														100	76	88			
31	26	10	18	24	15	20	27	21	24	3153	13	.40	26	ND	13	15	18	100	39	70		
Month	39	-14	15	30	15	23	33	21	27	9740	16	1.70								100	16	71
Month Mean	22	8		26	19		29	24								94	48					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 5-7" = 5%  
at 11-13" = 9%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado



Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month January Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	43	24	34															42	18	30
2	41	24	32															32	15	24
3	40	22	31															51	16	34
4	24	10	17															100	50	75
5	27	6	16															86	32	59
6	27	11	19	25	18	22	26	23	24	1861	13	.00	24	ND			100	66	83	
7	28	11	20															100	83	92
8	28	-7	10															100	82	91
9	-3	-30	-16															100	58	79
10	14	-34	-10															96	31	64
11	27	13	20															59	20	40
12	35	7	21															83	20	52
13	15	-3	6	25	20	22	27	24	26	1667	10	1.70	37	ND			100	78	89	
14	10	-10	0															100	45	72
15	14	5	10															79	48	64
16	22	3	12															84	12	48
17	27	8	18															52	10	31
18	18	5	12															100	50	75
19	20	3	12															100	84	92
20	26	19	22	23	13	18	26	19	22	1957	12	.60	48	ND			100	90	95	
21	25	10	18															100	54	77
22	18	7	12															95	55	75
23	21	10	16															78	19	48
24	41	16	28															29	8	18
25	39	17	28															58	11	34
26	38	21	30															56	24	40
27	30	20	25															68	27	48
28	40	24	32															43	25	34
29	42	30	36															30	14	22
30	43	30	36															51	28	40
31	41	30	36	30	16	23	28	20	24	3505	13	.25	34	9	14	18	21	54	30	42
Month	43	-34	19	30	13	21	28	19	24	8990	12	2.55						100	8	57
Month Mean	28	10		26	17		27	22										75	39	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydragraph (Hair) ①	Av. of Max. & Min.			

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%  
② Rim of gauge 40 inches above ground      at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month February Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture % Dry Weight			Relative Humidity			
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean	
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"				
1	44	21	32															75	36	56	
2	48	33	40															58	37	48	
3	49	31	40															69	32	50	
4	32	23	28															74	38	56	
5	28	19	24															62	34	48	
6	32	21	26															76	40	58	
7	28	23	26															100	65	82	
8	28	19	24															100	58	79	
9	34	23	28															100	69	84	
10	42	32	37	32	24	28	30	28	29	3879	16	.55	38	ND			87	34	60		
11	50	37	44															60	32	46	
12	45	25	35															100	40	70	
13	35	21	28															100	31	66	
14	34	21	28															100	24	62	
15	32	18	25															100	43	72	
16	38	21	30															100	38	69	
17	25	13	19															100	56	78	
18	21	11	16															76	42	59	
19	28	11	20															69	28	48	
20	28	9	18	32	21	26	30	28	29	2556	11	.20	37	ND			100	42	71		
21	21	9	15															100	61	80	
22	24	10	17															100	55	78	
23	16	7	12															100	66	83	
24	25	6	16															100	49	74	
25	19	-11	4															100	73	86	
26	19	-11	4															100	48	74	
27	7	-13	-3															95	57	76	
28	16	-11	2	28	20	24	28	26	27	1608	9	1.10	45	ND	14	ND	ND	70	20	45	
29																					
30																					
31																					
Month	50	-13	23	32	20	26	30	26	28	8043	12	1.85						100	20	66	
Month Mean	30	15		31	22		29	27										88	45		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydragraph (Hair) ①	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%  
② Rim of gauge 40 inches above ground      at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft Exposure Ridgetop Month March Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip Inches Water	Snow Inches		Soil Moisture			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	25	8	16															68	34	51
2	28	14	21															100	36	68
3	15	3	9															100	49	75
4	19	5	12															94	42	68
5	38	2	20															66	10	38
6	38	20	29															56	27	42
7	31	18	24															100	38	69
8	29	12	20															100	40	70
9	32	12	22	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	100	28	64	
10	24	7	16	30	16	23	27	22	24	2681	11	.20	44	ND			100	48	74	
11	10	2	6															94	59	76
12	16	-14	1															100	34	67
13	13	-19	-3															100	35	68
14	22	-1	10															67	22	44
15	25	8	16															76	28	52
16	35	9	22															89	15	52
17	36	4	20	29	14	22	27	23	25	1595	10	.60	45	ND			100	25	62	
18	32	19	26															74	19	46
19	38	20	29															100	21	60
20	31	19	25															100	32	66
21	30	17	24															100	35	68
22	31	11	21															85	28	56
23	32	13	22															100	25	62
24	29	11	20	31	22	26	29	24	26	1167	7	.20	47	ND			100	24	62	
25	40	25	32															65	31	48
26	45	25	35															58	20	39
27	47	32	40															40	20	30
28	43	12	28															100	21	60
29	28	1	15															100	49	74
30	27	2	15	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	100	35	68	
31	27	12	20	34	26	30	31	27	29	1603	9	.50	51	ND	17	14	17	100	46	73
Month Mean	47	-19	20	34	14	25	31	22	26	7046	9	1.50						100	10	60
Month Mean	30	10		31	20		29	24										88	32	

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 5-7" = 5%  
at 11-13" = 9%

Station No. C-1 Altitude 10,000 ft Exposure Ridgetop Month April Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip Inches Water	Snow Inches		Soil Moisture			Relative Humidity			
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max	Min	Mean	
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"				
1	34	12	23															100	34	67	
2	42	15	28															85	25	55	
3	39	17	28															100	43	72	
4	33	15	24															100	66	83	
5	34	22	28	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇		100	45	72	
6	35	18	26	32	32	32	31	31	31	693	5	.60	51	ND				100	30	65	
7	29	17	23															100	70	85	
8	22	13	18															100	49	74	
9	37	18	28															100	40	70	
10	31	19	25															100	69	84	
11	34	18	26															100	26	63	
12	40	18	29															52	18	35	
13	48	30	39															42	13	28	
14	52	33	42	32	31	31	32	30	31	1843	9	1.20	50	ND				46	20	33	
15	58	39	48															38	15	26	
16	51	30	40															100	24	62	
17	54	27	40															96	16	56	
18	55	27	41															96	12	54	
19	60	30	45															80	16	48	
20	62	33	48															80	13	46	
21	44	24	34	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇		100	29	64	
22	43	23	33	48	31	40	33	31	32	915	5	.60	37	ND				100	41	70	
23	54	26	40															67	9	38	
24	56	40	48															31	12	22	
25	56	36	46															52	18	35	
26	41	30	36															100	47	74	
27	46	26	36															93	23	58	
28	54	30	42															100	17	58	
29	32	18	25	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇		100	74	87	
30	29	15	22	48	32	40	38	32	35	1032	6	1.20	42	14	19	15	16	100	38	69	
31																					
Month Mean	62	12	34	48	31	36	38	30	32	4483	6	3.60						100	9	58	
Month Mean	44	24		40	32		34	31										85	32		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 5-7" = 5%  
at 11-13" = 9%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month May Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	42	20	31															52	17	34
2	47	28	38															79	26	52
3	50	28	39															88	30	59
4	57	32	44															82	20	51
5	57	34	46	41	32	36	36	32	34	783	7	.00	30	ND				80	26	53
6	58	35	46															81	27	54
7	60	33	46															71	19	45
8	58	34	46															81	27	54
9	62	38	50															37	15	26
10	61	36	48															64	17	40
11	62	36	49															61	20	40
12	64	44	54	55	36	46	42	36	39	1209	7	.10	12	ND				40	14	27
13	50	32	41															42	17	30
14	48	27	38															100	19	60
15	53	27	40															55	15	35
16	39	25	32															100	53	76
17	44	27	36															100	26	63
18	38	29	34															100	43	72
19	59	28	44	53	35	44	44	36	40	1329	8	.35	3	ND				78	16	47
20	54	31	42															100	15	58
21	43	26	34															100	26	63
22	39	24	32															100	55	78
23	51	31	41															100	24	62
24	52	29	40															100	21	60
25	49	27	38															100	36	68
26	51	27	39	50	35	42	42	36	39	1104	7	.25	0	ND				100	26	63
27	41	30	36															100	52	76
28	42	25	34															91	32	62
29	40	29	34															100	47	74
30	53	32	42															100	24	62
31	53	30	42	50*	34*	42*	42*	36*	39*	1194*	8*	2.10*	0*	ND	19*	18*	22*	100	34	67
Month	64	20	40	55	32	42	44	32	38	5619	7	2.80						100	14	57
Month Mean	51	30		50	34		41	35										86	28	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%
- ② Rim of gauge 40 inches above ground
- \* Data taken on 1 June, 1962

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month June Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"				
1	45	31	38															100	71	86	
2	45	31	38															100	39	70	
3	57	28	42															100	11	56	
4	58	34	46															94	10	52	
5	48	33	40															100	53	76	
6	49	29	39															100	52	76	
7	40	29	34															100	96	98	
8	39	27	33															100	40	70	
9	54	26	40	52	35	44	44	38	41	734	4	1.40	0	0				100	28	64	
10	61	30	46															100	19	60	
11	61	36	48															100	20	60	
12	60	35	48															100	21	60	
13	65	33	49															100	11	56	
14	64	36	50															95	13	54	
15	59	31	45	62	37	50	50	38	44	657	5	.00	0	0	21	15	13	100	22	61	
16	46	33	40															100	47	74	
17	50	31	40															75	40	58	
18	58	33	46															100	31	66	
19	67	32	50															100	15	58	
20	67	36	52															100	19	60	
21	65	33	49															100	16	58	
22	64	37	50	64	38	51	52	44	48	934	5	.26	0	0				100	27	64	
23	69	37	53															100	18	59	
24	67	36	52															100	22	61	
25	60	37	48															100	56	78	
26	65	32	48															100	31	66	
27	72	39	56															88	12	50	
28	71	41	56															89	18	54	
29	71	43	57															100	34	67	
30	65	43	54	69	46	58	54	49	52	887	5	.19	0	0	7	14	21	100	33	66	
31																					
Month	72	26	46	69	35	50	54	38	46	3212	5	1.85						100	10	64	
Month Mean	59	34		61	39		50	42										98	31		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%
- ② Rim of gauge 40 inches above ground

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month July Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	64	40	52															100	34	67
2	68	39	54															100	12	56
3	69	43	56															95	22	58
4	67	41	54															100	20	60
5	67	37	52															100	15	58
6	70	41	56	74	48	61	58	52	55	691	5	.20	0	ND			93	17	55	
7	74	44	59															100	20	60
8	63	41	52															100	50	75
9	70	43	56															78	12	45
10	73	42	58															78	12	45
11	71	37	54															82	16	49
12	71	43	57	76	52	64	60	54	57	798	6	.16	0	ND	5	5	11	100	29	64
13	64	41	52															100	31	66
14	56	34	45															100	35	68
15	62	28	45															100	20	60
16	63	33	48															100	24	62
17	67	42	54															78	15	46
18	67	39	53															96	26	61
19	65	44	54	70	47	58	59	51	55	914	5	.67	0	ND			72	26	49	
20	71	42	56															100	14	57
21	70	36	53															74	15	44
22	70	38	54															100	22	61
23	61	37	49															100	60	80
24	60	39	50															100	33	66
25	61	33	47															100	33	66
26	65	39	52	74	50	62	60	55	58	741	4	.50	0	ND	2	3	5	100	33	66
27	63	41	52															100	28	64
28	63	37	50															100	18	59
29	64	35	50															100	15	58
30	64	39	52															100	38	69
31	62	37	50	73	48	60	59	52	56	550	5	.08	0	ND	ND	ND	ND	100	35	68
Month Mean	74	28	52	76	47	61	60	51	56	3694	5	1.61						100	12	60
Month Mean	66	39		73	49		59	53										95	25	

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month August Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	63	35	49															100	22	61
2	69	35	52															100	15	58
3	66	37	52															97	24	60
4	66	46	56															61	25	43
5	72	46	59															34	10	22
6	70	44	57															68	15	42
7	70	41	56	74	50	62	61	53	57	1079	6	.00	0	ND			63	16	40	
8	73	39	56															67	24	46
9	71	41	56															90	31	60
10	71	41	56															100	26	63
11	66	34	50															100	43	72
12	70	38	54															100	26	63
13	73	53	63															40	16	28
14	76	51	64															36	14	25
15	71	40	56	75	56	66	62	58	60	1053	6	.00	0	ND	5	4	9	98	22	60
16	73	38	56															100	18	59
17	72	54	68															60	28	44
18	68	48	58															89	37	63
19	65	44	54															100	31	66
20	67	45	56															68	20	44
21	65	38	52															100	30	65
22	62	45	54	76	50	63	63	55	59	1182	7	.47	0	ND			86	31	58	
23	61	35	48															100	36	68
24	58	31	44															100	19	60
25	67	37	52															46	11	28
26	69	30	50															ND	ND	ND
27	70	38	54															75	16	46
28	66	40	53															73	10	42
29	69	36	53															95	16	56
30	51	34	42															100	61	80
31	52	27	40	72	45	58	59	51	55	1227	6	.18	0	ND	4	4	9	100	44	72
Month Mean	76	27	54	76	45	62	63	51	58	4541	6	.65						100	10	53
Month Mean	67	40		74	50		61	54										82	25	

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%

Data collected for Front Range Ecology Project  
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Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month September Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	63	27	45															96	11	54
2	66	28	47															84	11	48
3	64	32	48															54	17	36
4	63	30	46															96	23	60
5	67	30	48															80	19	50
6	67	35	51															51	23	37
7	58	42	50	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	82	43	62	
8	59	26	42	68	46	57	58	53	56	903	5	.00	0	ND			100	41	70	
9	45	22	34														100	17	58	
10	62	38	50														20	10	15	
11	67	49	58														24	14	19	
12	66	50	58														25	14	20	
13	68	42	55														41	21	31	
14	66	38	52														82	27	54	
15	69	33	51	68	42	55	57	50	54	1244	7	.07	0	ND	2	5	90	29	60	
16	64	33	48														100	38	69	
17	67	36	52														63	21	42	
18	69	31	50														88	25	56	
19	65	32	48														100	29	64	
20	60	41	50														100	46	73	
21	53	38	46														100	53	76	
22	59	34	46	65	44	54	56	51	54	687	4	.40	0	ND			100	24	62	
23	59	30	44														100	25	62	
24	55	29	42														100	50	75	
25	55	31	43														100	34	67	
26	53	27	40														100	52	76	
27	59	27	43														100	30	65	
28	52	36	44														98	44	71	
29	47	35	41	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	57	78	
30	48	29	38	60	40	50	52	46	49	1029	5	.41	0	ND	5	5	81	20	50	
31																				
Month	69	22	47	68	40	54	58	46	53	3863	5	.87					100	10	55	
Month Mean	61	34		65	43		56	50									82	29		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%  
 at 5-7" = 5%

Data collected for Front Range Ecology Project  
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Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month October Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	48	30	39															100	47	74
2	37	27	32															100	86	93
3	58	27	42															100	18	59
4	61	32	46															67	18	42
5	58	30	44	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	40	70	
6	40	29	34	60	39	50	50	44	47	1020	7	.20	0	ND			100	51	76	
7	48	33	40														79	38	58	
8	53	36	44														61	28	44	
9	60	33	46														55	17	36	
10	62	40	51														34	16	25	
11	63	31	47														55	16	36	
12	60	27	44	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	50	15	32	
13	63	33	48	59	38	49	48	44	46	1139	7	.00	0	ND			21	11	21	
14	62	38	50														93	16	54	
15	42	24	33														100	61	80	
16	35	22	28														100	88	94	
17	50	26	38														100	40	70	
18	53	24	38														100	36	68	
19	42	27	34	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	69	84	
20	43	20	31	58	38	48	49	42	46	811	5	.40	0	ND			100	19	60	
21	50	37	44														54	34	44	
22	51	27	39														100	27	64	
23	50	23	36														100	23	62	
24	42	21	32														100	35	68	
25	51	21	36	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	55	9	32	
26	54	31	42														26	9	18	
27	50	23	36	49	36	42	43	40	42	1574	9	.05	0	ND			100	16	58	
28	48	20	34														100	26	63	
29	54	23	38														94	35	64	
30	54	22	38	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	96	37	66	
31	49	26	38	48	35	42	41	40	40	381	4	.00	0	ND	3	8	100	41	70	
Month	63	20	40	60	35	46	50	40	44	4925	7	.65					100	9	58	
Month Mean	51	28		55	37		46	42									82	33		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%  
 at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000ft. Exposure Ridgetop Month November Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow inches		Soil Moisture % Dry Weight			Relative Humidity					
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Average Vel. mph	Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max	Min	Mean	
1	38	28	33														77	62	70	
2	46	21	33														100	51	76	
3	52	21	36														98	27	62	
4	54	31	42														44	18	31	
5	47	35	41														53	28	40	
6	36	23	30														65	28	46	
7	34	15	24														67	21	44	
8	45	31	38														27	16	22	
9	46	31	38	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		32	16	24	
10	40	22	31	49	32	40	42	38	40	1929	8	.00	T	ND			100	32	66	
11	34	19	26														86	29	58	
12	49	20	34														40	16	28	
13	47	28	38														58	20	39	
14	40	26	33														100	55	78	
15	30	17	24	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	100	100	
16	28	13	20														100	68	84	
17	15	0	8	42	32	37	38	37	38	2095	12	.60	6	ND			100	95	98	
18	19	0	10														100	97	98	
19	39	4	22														100	33	66	
20	48	27	38														100	30	65	
21	31	26	28														100	61	80	
22	40	26	33	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		71	33	52	
23	38	20	29														93	22	58	
24	45	27	36	35	29	32	37	34	36	1461	9	.40	4	ND			74	36	55	
25	40	28	34														80	49	64	
26	39	26	32														84	34	59	
27	44	29	36														59	34	46	
28	39	19	29														85	43	64	
29	44	18	31	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		65	25	46	
30	44	22	33	39	28	34	35	34	34	1252	9	.00	3	ND	ND	6	ND	80	32	56
31																				
Month Mean	54	0	31	49	28	36	42	34	37	6737	9	1.00					100	16	59	
Month Mean	40	22	31	41	30	38	38	36									78	40		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		B' Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.			

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9% at 5-7" = 5%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month December Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow inches		Soil Moisture % Dry Weight			Relative Humidity				
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Average Vel. mph	Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max	Min	Mean
1	37	22	29														98	63	80
2	37	15	26														100	53	76
3	35	17	26														100	73	86
4	18	11	14														100	57	78
5	31	12	22														100	39	70
6	32	24	28														88	46	67
7	35	23	29	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		89	46	68
8	34	23	28	35	26	30	34	32	33	2903	15	.50	8	ND			94	66	80
9	36	24	30														84	31	58
10	34	18	26														100	29	64
11	34	25	30														55	41	48
12	46	27	36														67	37	52
13	45	24	34														56	31	44
14	42	28	35	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		49	17	33
15	50	29	40	36	28	32	33	32	32	2072	12	.00	6	ND			74	36	55
16	55	23	39														65	27	46
17	43	25	34														53	34	44
18	36	15	26														100	47	74
19	27	15	21														100	94	97
20	23	13	18														100	53	77
21	23	11	17	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		96	57	77
22	23	10	16	37	26	32	34	31	32	1511	9	.30	12	ND			100	54	77
23	17	-2	8														100	68	84
24	10	-8	1														100	96	98
25	8	-15	-4														100	38	69
26	14	-2	6														75	30	52
27	25	9	17														67	32	50
28	25	14	20														84	26	55
29	33	17	25														62	21	42
30	40	24	32	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		27	15	21
31	36	17	26	30	18	24	31	25	28	2427	11	.30	10	ND			26	12	19
Month Mean	55	-15	24	37	18	30	34	25	32	8913	12	1.10					100	12	63
Month Mean	32	16	24	35	25	33	33	30									81	44	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		B' Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.		

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9% at 5-7" = 5%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month January Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	30	14	22															58	25	42
2	47	19	33															100	26	63
3	44	15	30															100	35	68
4	27	2	15															100	67	84
5	35	1	18	31	23	27	29	28	28	874	7	.30	15	ND				100	33	66
6	34	17	26															72	31	52
7	39	19	29															34	25	30
8	36	27	32															32	21	26
9	28	22	25															100	26	63
10	23	-25	-1															100	83	92
11																				
12	-10	-33	-22	28	19	24	30	25	28	1787	11	.20	15	ND				90	39	64
13	9	-11	-1															74	28	51
14	10	2	6															79	50	64
15	16	6	11															100	63	82
16	20	12	16															79	59	69
17	14	10	12															98	61	80
18	11	-27	-8															100	83	92
19	15	-28	-6	21	10	16	26	21	24	2683	16	.30	19	ND				100	45	72
20	18	7	12															98	67	82
21	27	17	22															100	65	82
22	23	-7	8															100	77	88
23	18	-15	2															100	35	68
24	26	16	21															100	35	68
25	16	7	12	25	16	20	25	21	23	2688	19	.70	24	ND				100	89	94
26	7	-8	0															100	47	74
27	16	4	10															53	33	43
28	27	15	21															86	24	55
29	23	18	20															100	73	86
30	31	21	26															100	84	92
31	33	28	30	26	14	20	26	22	24	2410	17	1.80	20	ND	5	11	ND	100	80	90
Month Mean	27	-33	14	31	10	21	30	21	25	10442	14	3.30						100	21	69
Month Mean	23	5		26	16		27	23										88	50	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.			

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 11-13" = 9%  
at 5-7" = 5%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month February Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	36	24	30															100	85	92
2	26	21	24															100	66	83
3	40	23	32															83	45	64
4	44	32	38															68	34	51
5	50	32	41															46	24	35
6	53	21	37																	
7	46	29	38																	
8	39	19	29																	
9	28	7	18	29	25	27	29	26	28	2540	12	1.30	30	ND				100	10	55
10	20	-6	7															100	50	75
11	9	-23	-7																	
12	24	-23	0																	
13	30	12	21															100	25	62
14	34	13	24															31	15	23
15	23	8	16																	
16	23	1	12	27	23	25	28	25	26	1024	6	.70	ND	ND				100	10	55
17	35	8	22															100	29	64
18	27	14	20															100	45	72
19	24	15	20															95	69	82
20	29	22	26															100	69	84
21	29	11	20															100	45	72
22	34	11	22															84	32	58
23	26	16	21	26	23	24	27	25	26	1769	11	.50	40	ND				100	74	87
24	32	19	26															100	38	69
25	27	15	21															100	41	70
26	35	22	28															98	26	62
27	25	11	18															100	55	78
28	27	11	19	26	20	23	27	25	26	1941	16	.20	30	ND	ND	ND	ND	98	39	68
29																				
30																				
31																				
Month Mean	53	-23	22	29	20	25	29	25	26	7274	11	2.70						100	10	67
Month Mean	31	13		27	23		28	25										91	42	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.			

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 11-13" = 9%  
at 5-7" = 5%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month March Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean											
1	25	12	18														100	60	80	
2	21	10	16														100	54	77	
3	15	3	9														100	97	98	
4	8	-5	2														100	83	92	
5	21	4	12														89	26	58	
6	17	6	12														100	50	75	
7	28	9	18														78	23	50	
8	25	6	16														100	42	71	
9	30	15	22	25	18	22	26	23	24	2462	11	1.10	ND	ND	6	5	8	61	23	42
10	33	0	16														77	30	54	
11	21	11	16														100	52	76	
12	15	3	9														100	92	96	
13	17	-5	6														100	35	68	
14	32	-6	13														60	12	36	
15	33	8	20	25	18	22	28	23	26	ND	ND	.70	44	ND			100	28	64	
16	15	4	10														100	48	74	
17	34	2	18														100	37	68	
18	26	14	20														100	63	82	
19	24	12	18														96	55	76	
20	35	14	24														100	35	68	
21	44	8	26														100	16	58	
22	48	30	39	29	17	23	29	23	26	1298	9	.30	42	ND			62	26	44	
23	44	28	36														64	32	48	
24	35	22	28														67	39	53	
25	34	15	24														75	22	48	
26	38	8	23														59	29	44	
27	48	26	37														67	22	44	
28	49	21	35														100	37	68	
29	43	20	32														91	24	58	
30	49	26	38														64	30	47	
31	50	26	38	45	29	37	34	29	32	2354	11	.10	34	ND	6	6	10	67	23	45
Month	50	-6	21	45	17	26	34	23	27	6114	11	2.20					100	12	63	
Month Mean	31	11		31	21		29	25									86	40		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4% at 11-13" = 9%  
at 5-7" = 5%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month April Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean											
1	51	35	43														66	24	45	
2	35	14	24														100	43	72	
3	31	13	22														91	31	61	
4	41	8	24														98	22	60	
5	40	21	30														92	49	70	
6	48	29	38	48	28	38	37	35	36	1474	10	.15	35				82	39	60	
7	52	37	44														81	35	58	
8	44	32	38														100	43	72	
9	47	30	38														100	33	66	
10	38	20	29														100	21	60	
11	41	18	30														100	19	60	
12	51	20	36														100	15	58	
13	56	31	44	53	34	44	39	34	36	1225	7	.20	30			68	15	42		
14	60	28	44														63	23	43	
15	52	25	38														100	27	64	
16	41	25	33														80	29	54	
17	38	20	29														100	45	72	
18	23	13	18														100	49	74	
19	30	13	22														97	41	69	
20	40	23	32	55	30	42	43	32	38	1587	9	.30	30			79	29	54		
21	37	18	28														100	59	80	
22	30	13	22														100	34	67	
23	41	14	28														98	17	58	
24	39	14	26														100	23	62	
25	50	20	35	46	32	39	37	33	35	769	7	.30	ND			95	19	57		
26	50	29	40														100	37	68	
27	33	19	26														100	37	68	
28	30	23	26														100	67	84	
29	37	25	31														100	45	72	
30	48	23	36	50	32	41	41	35	38	912	8	.20	27			100	27	64		
31																				
Month	60	8	32	55	28	41	43	32	37	5967	8	1.15					100	15	63	
Month Mean	42	22		50	31		39	34									93	33		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 4% at 11-13" = 9%  
at 5-7" = 5%



Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month May Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches Total Depth Water Cont.		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		0-2"	5-7"	11-13"	Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.	Mean											
1	52	28	40												100	27	64			
2	49	30	40												87	29	58			
3	56	30	43												77	19	48			
4	55	28	42												100	29	64			
5	57	30	44												98	19	58			
6	64	30	47												95	18	56			
7	65	41	53	62	35	48	47	35	41	1073	6	.20	13	ND	47	23	35			
8	65	39	52												88	25	56			
9	57	36	46												100	27	64			
10	60	33	46												82	24	53			
11	62	42	52												41	20	30			
12	46	31	38	63	44	54	51	45	48	874	7	.00	12	ND	46	27	36			
13	58	25	42												77	21	49			
14	57	34	46												62	27	44			
15	59	37	48												100	24	62			
16	54	29	42												100	39	70			
17	58	28	43												100	16	58			
18	59	28	44	65	42	54	53	47	50	767	5	.00	0	ND	100	10	55			
19	39	29	34												100	95	98			
20	47	29	38												100	37	68			
21	45	27	36												100	51	76			
22	46	29	38												100	62	81			
23	55	36	46												100	39	70			
24	55	36	46												100	35	68			
25	55	33	44	64	38	51	53	44	48	583	4	1.00	T	ND	100	25	62			
26	56	36	46												100	28	64			
27	56	29	42												100	20	60			
28	60	31	46												100	28	64			
29	57	34	46												100	27	64			
30	64	37	50												100	21	60			
31	57	31	44	60	41	50	51	46	48	761	5	.25	0	ND	7	11	11			
Month Mean	65	25	44	65	35	51	53	35	47	4058	6	1.45								
Month Mean	56	32		63	40		51	43							90	30				
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4% at 5-7" = 5%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month June Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches Total Depth Water Cont.		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		0-2"	5-7"	11-13"	Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.	Mean											
1	64	31	48												100	29	64			
2	48	38	43												100	75	88			
3	55	34	44												100	37	68			
4	63	31	47												100	14	57			
5	58	35	46												100	29	64			
6	63	30	46												100	24	62			
7	61	33	47												79	35	57			
8	58	35	46	65	40	52	53	46	50	1007	5	.45	0	0	100	49	74			
9	49	33	41												100	39	70			
10	53	34	44												100	36	68			
11	60	31	46												100	19	60			
12	66	31	49												100	27	64			
13	69	34	52												100	23	62			
14	64	39	52	64	40	52	53	46	50	853	6	.55	0	0	100	39	70			
15	53	36	44												100	69	84			
16	39	34	36												100	100	100			
17	55	31	43												100	65	82			
18	50	40	45												100	55	78			
19	62	34	48												100	23	62			
20	68	41	54	60	40	50	52	45	48	560	4	2.15	0	0	15	15	16			
21	69	35	52												100	6	53			
22	68	43	56												45	10	28			
23	69	42	56												68	17	42			
24	74	41	58												44	14	29			
25	63	40	52												85	18	52			
26	70	34	52												100	9	54			
27	72	36	54	76	46	61	62	49	56	949	6	.05	0	0	100	11	56			
28	74	40	57												68	20	44			
29	71	43	57												36	14	25			
30	74	38	56	78	56	67	62	59	60	452	6	.00	0	0	4	7	12			
31																				
Month Mean	74	30		78	40	56	62	45	53	3821	5	3.20			100	6	60			
Month Mean	62	36		69	44		56	49							90	31				
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4% at 5-7" = 5%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month July Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max	Min.	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	63	37	50															100	36	68
2	72	44	58															92	28	60
3	66	40	53															100	38	69
4	68	43	56	78	54	66	64	58	61	437	5	.23	0	0				100	31	66
5	67	39	53															100	37	68
6	71	39	55															100	26	63
7	70	41	56															100	28	64
8	70	39	54															100	28	64
9	67	45	56															100	44	72
10	69	49	59															92	28	60
11	66	44	55	71	50	60	60	56	58	840	5	1.01	0	0				100	32	66
12	70	49	60															55	18	36
13	67	46	56															100	27	64
14	68	39	54															88	22	55
15	70	38	54															92	24	58
16	67	39	53															100	33	66
17	67	40	54															100	30	65
18	73	44	58	76	54	65	62	58	60	979	6	.17	0	0	4	5	8	60	24	42
19	72	41	56															100	21	60
20	74	45	60															100	20	60
21	74	50	62															61	24	42
22	72	46	59															100	34	67
23	72	43	58															100	32	66
24	67	42	54															100	45	72
25	75	45	60	72	52	62	64	58	61	769	5	.89	0	0				100	23	62
26	68	45	56															100	35	68
27	53	35	44															100	56	78
28	66	33	50															100	10	55
29	70	34	52															83	12	48
30	72	37	54															70	12	41
31	71	36	54	76	48	62	62	56	59	578	4	.20	0	0	2	17	16	72	16	44
Month	75	33	55	78	48	63	64	56	60	3603	5	2.50						100	10	60
Month Mean	69	42		75	52		62	57										92	28	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4%; at 5-7" = 5%; at 11-13" = 9%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month August Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max	Min.	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	73	49	61															91	32	62
2	67	46	56															100	51	76
3	59	46	52															100	76	88
4	66	45	56															100	45	72
5	61	46	54															100	65	82
6	61	44	52															100	63	82
7	67	46	56															100	42	71
8	69	47	58	ND	50	ND	62	55	58	911	5	3.62	0	ND	13	16	20	100	38	69
9	61	47	54															100	49	74
10	67	39	53															100	47	74
11	61	43	52															100	57	78
12	53	39	47															100	95	98
13	55	37	46															100	62	81
14	63	37	50															100	41	70
15	70	41	56	64	46	55	57	52	54	547	3	1.91	0	ND	17	19	21	100	28	64
16	69	41	55															100	28	64
17	61	38	50															100	40	70
18	62	43	52															100	40	70
19	67	39	53															100	23	62
20	63	41	52															100	45	72
21	62	46	54															100	56	78
22	61	43	52	65	48	56	56	52	54	799	5	.43	0	ND	19	15	18	100	49	74
23	61	41	51															100	45	72
24	66	38	52															100	34	67
25	67	43	55															100	31	66
26	66	44	55															100	37	68
27	61	45	53															100	40	70
28	58	37	48															100	49	74
29	63	36	50															100	45	72
30	65	39	52															100	37	68
31	59	37	48	65	46	56	56	52	54	937	4	1.17	0	ND	20	17	17	100	55	78
Month	73	36	53	65	46	56	62	52	55	3194	4	7.13						100	23	73
Month Mean	63	42		65	48		58	53										99	47	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4%; at 5-7" = 5%; at 11-13" = 9%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month September Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity			
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max	Min	Mean	
				Max	Min	Mean	Max	Min	Mean												
1	57	40	48																		
2	60	39	50																		
3	65	34	50																		
4	62	36	49																		
5	64	40	52																		
6	65	45	55	64	46	55	56	51	54	714	5	.57	0	ND	12	12	18	100	42	71	
7	57	46	56															100	50	75	
8	65	43	54															100	60	80	
9	62	43	52															100	35	68	
10	60	35	48															100	37	68	
11	65	40	52															100	29	64	
12	62	35	48															100	37	68	
13	66	36	51	63	45	54	55	50	52	843	5	1.40	0	ND	13	16	17	100	30	65	
14	57	37	47															100	51	76	
15	57	33	45															100	55	78	
16	62	33	48															100	35	68	
17	65	34	50															100	32	66	
18	69	34	52															100	33	66	
19	64	38	51															100	39	70	
20	48	43	46	60	45	52	53	50	52	742	5	.54	0	ND	14	16	15	100	100	100	
21	51	37	44															100	78	89	
22	61	35	48															100	31	66	
23	66	37	52															100	25	62	
24	54	32	43															100	52	76	
25	63	30	46															100	15	58	
26	67	30	48															100	24	62	
27	66	30	48															100	25	62	
28	57	31	44															100	25	62	
29	64	28	46															100	20	60	
30	64	36	50	60	42	51	52	49	50	897	4	.79	0	ND	10	15	17	100	20	60	
31																					
Month	69	28	49	64	42	53	56	49	52	3196	4	3.30						100	15	69	
Month Mean	62	36		62	44		54	50										100	39		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%      at 11-13" = 9%  
at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month October Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity			
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max	Min	Mean	
				Max	Min	Mean	Max	Min	Mean												
1	63	38	50																		
2	63	35	49																		
3	61	30	46																		
4	64	31	48																		
5	60	42	51	58	44	51	51	48	50	639	5	.00	0	ND	12	19	17	98	18	58	
6	60	32	46															53	24	38	
7	62	30	46															100	34	67	
8	61	32	46															100	21	60	
9	59	33	46															100	20	60	
10	62	31	46															92	31	62	
11	60	30	45															100	21	60	
12	59	34	46	59	44	52	51	48	50	864	5	.00	0	ND	ND	8	10	100	22	61	
13	53	28	40															100	31	66	
14	53	28	40															90	28	59	
15	53	26	40															100	32	66	
16	53	27	40															100	44	72	
17	58	26	42															100	16	58	
18	60	31	46	55	40	48	49	45	47	787	5	.00	0	ND	4	14	14	75	21	48	
19	55	34	44															84	31	58	
20	42	33	34															100	73	86	
21	47	33	40															89	16	52	
22	51	33	42															34	6	20	
23	49	35	43															94	29	62	
24	45	34	40															93	18	56	
25	54	36	45	53	38	46	47	42	44	1256	7	.60	0	ND	10	14	9	63	20	42	
26	54	29	42															100	34	67	
27	49	24	36															100	22	61	
28	54	21	38															100	9	54	
29	47	37	42															100	30	65	
30	49	29	39															100	22	61	
31	29	12	20	49	36	42	44	42	43	860	6	.10	T	ND	10	10	11	100	40	70	
Month	64	12	43	59	36	46	51	42	47	4406	6	.70						100	9	59	
Month Mean	54	31		55	40		48	45										91	26		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%      at 11-13" = 9%  
at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month November Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"				
1	39	13	26															69	14	42	
2	50	28	39															42	6	24	
3	42	28	35															100	40	70	
4	32	26	29															100	45	72	
5	34	24	29															100	30	65	
6	43	32	38															38	24	31	
7	43	21	32															100	30	65	
8	37	20	28															100	42	71	
9	42	31	36	38	34	36	42	37	40	2207	10	.60	0	ND	14	11	17	84	52	68	
10	47	32	40															88	26	57	
11	43	22	32															100	28	64	
12	45	21	33															88	13	50	
13	49	30	40															56	10	33	
14	44	35	40															50	38	44	
15	47	28	38															59	29	44	
16	39	13	26	42	34	38	38	36	37	1235	8	.00	T	ND	14	19	17	100	44	72	
17	30	10	20															75	12	44	
18	41	11	26															41	4	22	
19	39	10	24															38	6	22	
20	42	22	32															30	6	18	
21	40	23	32															80	12	46	
22	26	15	20															98	30	64	
23	39	24	32	36	29	32	37	34	36	1500	9	.40	0	ND	10	12	18	36	21	28	
24	32	18	25															100	24	62	
25	31	10	20															100	8	54	
26	51	14	32															76	17	46	
27	49	25	37															69	10	40	
28	32	20	26															73	20	46	
29	37	24	32															28	13	20	
30	44	29	36	32	28	30	34	32	33	1397	8	.00	5	ND	10	12	15	15	4	10	
31																					
Month	51	10	31	42	28	34	42	32	36	6339	9	1.00						100	4	46	
Month Mean	40	22		37	31		38	35										71	22		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.					

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month December Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	% Dry Weight			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	33	10	22															68	10	39
2	42	21	32															34	18	26
3	44	19	32															48	14	31
4	45	14	30															60	20	40
5	40	16	28															50	22	36
6	38	10	24															100	20	60
7	10	3	6	32	27	30	32	32	32	1173	7	.00	T	ND				100	78	89
8	27	2	14															85	13	49
9	38	3	20															100	30	65
10	7	-12	-2															100	90	95
11	10	-11	0															100	50	75
12	9	1	5															90	51	70
13	10	0	5															87	53	70
14	20	7	14	30	18	24	32	27	30	2018	12	.40	7	ND				92	58	75
15	21	14	18															100	73	86
16	32	18	25															99	39	69
17	27	21	24															92	60	76
18	37	22	30															89	35	62
19	32	21	26															77	50	64
20	27	16	22															100	55	78
21	19	10	14	30	19	24	30	27	28	1696	10	.30	6	ND				100	100	100
22	22	-2	10															100	21	60
23	40	20	30															54	19	36
24	42	26	34															38	9	24
25	38	20	29															56	10	33
26	25	16	20															58	27	42
27	23	14	18															100	39	70
28	19	12	16															100	71	86
29	17	8	12															100	56	78
30	28	10	19															68	32	50
31	34	25	30	31	24	28	30	27	28	3677	16	.90	14	ND	2	10	10	62	33	48
Month	45	-12	20	32	18	26	32	27	30	8564	12	1.60						100	9	61
Month Mean	28	11		31	22		31	28										81	40	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 5%

Data collected for Front Range Ecology Project  
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Data collected for Front Range Ecology Project  
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Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month January Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	38	27	32															56	41	48
2	33	14	24															100	34	67
3	19	9	14															100	21	60
4	26	11	18															69	13	41
5	11	1	6	30	20	25	30	27	28	1687	13		18	ND				85	45	65
6	15	3	9															79	60	70
7	15	-1	7															100	50	75
8	4	-6	-1															100	54	77
9	15	-6	4															84	42	63
10	16	-5	6															100	40	70
11	5	-9	-2	22	14	18	28	24	26	2139	15	.20	18	ND				100	48	74
12	9	-20	-6															94		
13	19	ND	ND																	
14	32	-8	12															75	12	44
15	18	-15	2															90	36	63
16	24	14	19															70	25	48
17	19	10	14															100	40	70
18	19	8	14	25	12	18	26	22	24	1682	10	.25	18	ND				100	60	80
19	16	2	9															100	80	90
20	32	16	24															100	23	62
21	33	17	25															83	25	54
22	23	9	16															100	53	76
23	9	-1	4															94	59	76
24	4	-5	0															100	66	83
25	22	4	13	28	14	21	27	22	24	2506	15	.45	19	ND				100	62	81
26	29	14	22															100	52	76
27	32	13	22															62	4	33
28	33	17	25															59	7	33
29	39	18	28															30	6	18
30	32	17	24															93	10	52
31	21	15	18	28	18	23	26	21	24	2263	14	.20	18	ND	18	12	2	72	14	43
Month Mean	39	-20	13	30	12	21	30	21	25	10277	13	1.10						100	4	62
Month Mean	21	5		27	16		27	23										86	37	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max & Min.				

Data collected for Front Range Ecology Project  
Supported by U. S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage :  
 at 0-2" = 4%  
 at 5-7" = 5%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month February Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean						0-2"	5-7"	11-13"			
1	31	12	22															100	22	61
2	14	-1	6															100	58	79
3	16	-8	4															100	57	78
4	37	8	22															100	27	64
5	30	8	19															100	21	60
6	11	0	6															100	47	74
7	19	0	10															92	41	66
8	19	9	14	27	18	22	27	24	26	1558	10	.50	24	ND				88	51	70
9	21	13	17															100	52	76
10	35	21	28															97	31	64
11	38	17	28															81	12	46
12	17	1	9															100	48	74
13	28	5	16															100	24	62
14	12	-4	4																	
15	29	ND	ND	28	16	22	27	24	26	2007	12	.80	29	ND				100	10	55
16	18	6	12															75	27	51
17	15	5	10															100	63	82
18	11	5	8																	
19	22	4	13																	
20	14	-9	2																	
21	12	0	6																	
22	21	-1	10	27	18	22	28	22	25	1895	11	.30	29	ND				100	37	68
23	17	-1	8																	
24	25	8	16															100	27	64
25	11	-9	1															100	44	72
26	17	-2	8															76	25	50
27	10	-3	4															75	34	54
28	29	9	19															35	10	22
29	25	14	20	26	14	20	24	20	22	2033	12	.40	29	ND	11	12	11	65	12	38
30																				
31																				
Month Mean	38	-9	12	28	14	22	28	20	24	7493	11	2.00						100	10	62
Month Mean	21	4		27	16		26	22										91	34	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max & Min.				

Data collected for Front Range Ecology Project  
Supported by U. S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage :  
 at 0-2" = 4%  
 at 5-7" = 5%



Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month May Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean											
1	47	29	38														100	38	69	
2	42	20	31														100	32	66	
3	29	15	22														100	50	75	
4	47	22	34														95	18	56	
5	40	22	31														96	25	60	
6	42	20	31														100	31	66	
7	48	19	34														100	16	58	
8	37	18	28														100	47	74	
9	44	25	34	ND	32	ND	36	32	34	2118	10	20	28	ND			82	32	57	
10	50	27	38														97	21	59	
11	36	23	30														100	37	68	
12	51	25	38														100	70	55	
13	59	33	46														39	19	29	
14	61	34	48														62	14	38	
15	64	33	48														75	14	44	
16	69	32	50	62	34	48	44	34	39	905	6	.10	18	ND	16	16	21	100	11	56
17	68	41	54														31	16	24	
18	58	34	46														100	25	62	
19	59	35	47														100	38	69	
20	69	32	50														100	15	58	
21	69	42	56														73	19	46	
22	64	38	51	66	45	56	49	43	46	731	5	.00	0	0	6	11	17	76	27	52
23	61	37	49														86	25	56	
24	67	30	48														100	24	62	
25	68	40	54														90	22	56	
26	44	36	40														100	84	92	
27	52	32	42																	
28	53	31	42																	
29	47	30	38																	
30	36	27	32																	
31	45	25	35	62	35	48	49	38	44	807	4	1.58	6	ND	16	12	17	100	75	88
Month	69	15	41	66	32	51	49	32	41	4561	6	1.88						100	10	59
Month Mean	52	29		63	36		44	37										90	21	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max & Min.					

Data collected for Front Range Ecology Project Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage at 0-2" = 4% at 11-13" = 9% at 5-7" = 5%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month June Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean											
1	38	30	34														100	85	92	
2	47	29	38														100	61	80	
3	48	36	42														100	44	72	
4	51	32	42														100	47	74	
5	54	30	42	46	34	40	38	35	36	445	4	1.23	0	0	18	24	22	100	37	58
6	57	36	46														100	35	68	
7	66	34	50														100	20	60	
8	44	31	38														100	40	70	
9	54	35	44														100	26	63	
10	58	34	46														100	48	74	
11	58	34	46	57	38	48	47	38	42	1051	7	.16	0	0	14	16	15	100	22	61
12	58	35	46														100	32	66	
13	53	31	42														100	49	74	
14	54	33	44														100	34	67	
15	66	40	53														100	26	63	
16	66	37	52														92	17	54	
17	69	35	52														100	20	60	
18	50	33	42														100	31	66	
19	61	33	47	60	42	51	50	45	48	1363	7	.29	0	0	13	21	18	100	26	63
20	53	33	43														100	60	80	
21	47	32	40														100	52	76	
22	45	29	37														100	43	72	
23	61	33	47														75	14	44	
24	67	29	48														100	7	54	
25	70	38	54	65	38	52	51	44	48	891	6	.13	0	0	7	14	18	100	16	58
26	71	42	56														88	18	53	
27	69	39	54														100	25	62	
28	64	46	55														100	37	68	
29	63	41	52														100	37	68	
30	64	39	52	67	47	57	54	50	52	607	5	.21	0	0	10	11	16	100	30	65
31																				
Month	71	29	46	67	34	49	54	35	45	4357	6	2.02						100	7	67
Month Mean	58	35		59	40		48	42										99	35	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max & Min.					

Data collected for Front Range Ecology Project Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage at 0-2" = 4% at 11-13" = 9% at 5-7" = 5%

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month July Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean											
1	71	43	57														100	17	58	
2	71	37	54	68	46	57	54	50	52	198	4	.12	0	0			100	17	58	
3	75	39	57														76	15	46	
4	73	42	58														76	20	48	
5	71	44	58														71	31	51	
6	74	39	56														100	20	60	
7	74	38	56														100	17	58	
8	75	42	58														100	15	58	
9	73	42	58	74	52	63	60	52	56	867	5	.02	0	0	8	18	16	100	24	62
10	68	47	58														100	39	70	
11	63	40	52														100	45	72	
12	59	41	50														100	58	79	
13	69	35	52														100	21	60	
14	72	48	60														83	18	50	
15	69	50	60														100	31	66	
16	69	48	58	70	51	60	58	52	55	891	5	.65	0	0	9	17	19	100	36	68
17	72	44	58														100	23	62	
18	68	42	55														100	42	71	
19	75	41	58														100	16	58	
20	73	49	61														83	15	49	
21	73	46	60														80	25	52	
22	72	51	62														100	37	68	
23	75	48	62	74	53	63	61	55	58	779	5	.08	0	0	4	9	10	100	32	66
24	63	42	52														100	55	78	
25	70	36	53														100	17	58	
26	71	39	55														100	18	59	
27	74	42	58														92	17	54	
28	68	39	54														100	36	68	
29	72	40	56														100	30	65	
30	68	48	58														100	37	68	
31	69	49	59	74	52	63	61	56	58	868	4	1.96	0	0	16	15	20	100	42	71
Month	75	35	57	74	46	62	61	50	56	3603	5	2.83					100	15	62	
Month Mean	71	43		72	51		59	53									96	28		
Key	Thermograph (Bourdon Tube) ①	Av of Max & Min		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydograph (Hair) ①	Av of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9% at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month August Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2"	5-7"	11-13"	Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean											
1	64	50	57														100	46	73	
2	64	47	56														100	48	74	
3	62	44	53														100	46	73	
4	63	42	52														100	53	76	
5	66	41	54														100	39	70	
6	65	42	54	65	50	58	58	54	56	861	6	.99	0	ND			100	45	72	
7	63	37	50																	
8	70	39	54																	
9	71	41	56																	
10	71	41	56																	
11	61	34	48																	
12	67	43	55														100			
13	66	42	54	69	50	60	58	54	56	738	4	.43	0	ND			100	27	64	
14	64	41	52														100	30	65	
15	68	44	56														63	23	43	
16	65	38	52														100	26	63	
17	62	38	50														100	34	67	
18	70	35	52														100	16	58	
19	60	41	50														100	39	70	
20	52	33	42	72	50	61	60	55	58	925	5	.15	0	ND			100	29	64	
21	48	31	40														75	37	56	
22	56	32	44														98	31	64	
23	63	29	46														100	18	59	
24	66	36	51														100	18	59	
25	62	35	48														100	19	60	
26	65	45	55														98	24	61	
27	48	34	41	67	48	58	57	53	55	1065	6	.24	0	ND			100	31	66	
28	61	31	46														100	17	58	
29	50	31	40														100	16	58	
30	60	27	44														100	29	64	
31	65	32	48	64	43	54	54	50	52	750	8	.18	0	ND	ND	ND	100	15	58	
Month	71	27	50	72	43	58	60	50	55	4339	6	1.99					100	15	64	
Month Mean	62	38		67	48		57	53									98	30		
Key	Thermograph (Bourdon Tube) ①	Av of Max & Min		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydograph (Hair) ①	Av of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4% at 11-13" = 9% at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado



Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month September Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	66	42	54														70	29	50	
2	65	37	51														78	19	48	
3	64	30	47														100	17	58	
4	66	28	47	67	49	58	55	51	53	513	5	.00	0	ND			100	11	56	
5	66	37	52														65	24	44	
6	65	47	56														88	29	58	
7	62	41	52														100	27	64	
8	64	35	49														100	32	66	
9	63	43	53														91	43	67	
10	61	35	48														100	23	62	
11	62	30	46	66	47	56	56	52	54	973	6	.03	0	ND			100	14	57	
12	60	27	44														99	26	62	
13	63	30	46														54	14	34	
14	58	31	44														100	30	65	
15	43	33	38														100	85	92	
16	52	28	40														100	38	69	
17	61	34	48														79	16	48	
18	60	34	47	62	40	51	54	47	50	769	4	1.37	T	ND			100	100	100	
19	35	28	32														100	38	69	
20	47	24	36														100	40	70	
21	48	25	36														100	26	63	
22	56	28	42														100	34	67	
23	56	28	42														100	24	62	
24	60	28	44														62	29	46	
25	58	42	50														100	61	80	
26	48	22	35	57	38	48	48	44	45	714	4	.32	T	ND	ND	ND	100	45	72	
27	50	20	35														100	26	63	
28	58	38	48														100	30	65	
29	56	33	44														62	26	44	
30	58	42	50	54	37	46	47	43	45	860	9	.07	0				100	11	62	
31																				
Month	66	20	45	67	37	52	56	43	50	3829	5	1.79					100	11	62	
Month Mean	58	33		61	42		52	47									92	33		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4%, at 5-7" = 5%, at 11-13" = 9%

Data collected for Front Range Ecology Project Supported by U.S. Army and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month October Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	60	36	48														47	24	36	
2	60	31	46														32	11	22	
3	60	27	44	57	40	48	48	45	46	976	14	.00	0	ND			100	17	58	
4	46	19	32														100	39	70	
5	53	22	38														80	19	50	
6	56	22	39														84	24	54	
7	55	26	40														90	23	56	
8	57	25	41														95	20	58	
9	58	31	44														100	35	68	
10	55	28	42	44	39	42	50	45	48	1377	8	.10	0	ND			100	41	70	
11	42	26	34														100	38	69	
12	49	19	34														91	21	56	
13	55	22	38														94	26	60	
14	58	36	47														56	22	39	
15	56	41	48														35	23	29	
16	57	43	50														59	27	43	
17	47	23	35	ND	36	ND	48	41	44	1377	8	.20	0	ND			100	49	74	
18	32	12	22														100	21	60	
19	45	28	36														48	15	32	
20	50	32	41														43	17	30	
21	51	34	42														32	20	26	
22	37	22	30														100	26	63	
23	38	16	27														100	56	78	
24	41	25	33	ND	34	ND	46	40	43	1343	8	.10	0	ND			85	40	62	
25	50	22	36														70	20	45	
26	50	28	39														40	16	28	
27	49	27	38														67	27	47	
28	51	33	42														58	31	44	
29	59	31	45														80	24	52	
30	47	28	38														100	41	70	
31	37	24	30	50	34	42	43	38	40	1533	9	.10	T	ND	ND	ND	100	46	73	
Month	60	12	39	57	34	44	50	38	44	6606	9	.50					100	11	52	
Month Mean	50	27		50	37		47	42									78	28		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 4%, at 5-7" = 5%, at 11-13" = 9%

Data collected for Front Range Ecology Project Supported by U.S. Army and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month November Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH

SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	50	23	36															86	17	52
2	43	25	34															100	29	64
3	34	15	24															100	47	74
4	49	11	30															100	7	54
5	55	16	36															80	10	45
6	47	28	38															51	28	40
7	50	28	39	42	32	37	41	36	38	1309	8	.20	0	ND			48	18	33	
8	48	28	38															37	20	28
9	48	26	37															55	17	36
10	41	23	32															63	26	44
11	27	13	20															100	50	75
12	24	12	18															100	56	78
13	34	14	24															100	33	66
14	20	9	15	41	29	35	38	34	36	1846	11	.20	7	ND			100	90	95	
15	32	5	18															100	62	81
16	39	15	27															100	59	80
17	24	13	18															100	80	90
18	28	8	18															100	58	79
19	16	5	10															95	54	74
20	25	13	19															69	52	60
21	37	14	26	32	28	30	34	33	33	1469	9	.90	2	ND			80	17	48	
22	43	23	33															29	9	19
23	28	18	23															62	27	44
24	36	21	28															79	14	46
25	33	25	29															100	62	81
26	39	23	31															98	24	61
27	25	10	18															100	60	80
28	23	11	17															95	63	79
29	29	21	25															92	65	78
30	40	26	33	ND	25	ND	33	31	32	3907	18	.15	6	ND	ND	ND	ND	86	32	59
31																				
Month Mean	55	5	26	42	25	34	41	31	35	8531	12	1.45						100	7	62
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③			Hydrograph (Hair) ①	Av. of Max & Min.	

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 11-13" = 9%  
at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

Station No. C-1 Altitude 10,000 ft. Exposure Ridgetop Month December Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH

SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow Inches		Soil Moisture % Dry Weight			Relative Humidity		
	Max	Min	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph		Total Depth	Water Cont.	0-2" 5-7" 11-13"			Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean						0-2"	5-7"	11-13"			
1	35	23	29															100	42	71
2	28	5	16															93	41	67
3	23	-2	10															100	45	72
4	22	3	12															100	43	72
5	19	2	10	31	25	28	32	30	31	1086	9	.25	3	ND				100	37	68
6	19	-11	4															100	41	70
7	32	-9	12															75	13	44
8	34	1	18															64	9	36
9	24	13	18															100	22	61
10	18	8	13															87	24	56
11	24	15	20															100	67	84
12	15	-5	5	27	22	24	30	27	28	1440	9	.30	15	ND				98	60	79
13	11	-4	4															86	34	60
14	24	8	16															100	12	56
15	24	19	22															54	33	44
16	27	10	18															100	37	68
17	18	-8	5															100	12	56
18	33	17	25															92	7	50
19	24	17	20	27	16	22	28	24	26	3626	21	.20	11	ND				100	54	82
20	27	19	23															100	37	68
21	36	23	30															100	27	64
22	39	28	34															100	62	81
23	38	24	31															100	72	86
24	28	20	24															100	76	88
25	21	10	16															100	69	84
26	24	15	20	31	20	26	30	25	28	3125	19	1.90	28	ND				100	70	85
27	31	21	26															100	65	82
28	26	9	18															100	52	76
29	12	2	7															100	58	79
30	19	-6	6															78	21	50
31	28	5	16	30	28	29	30	26	28	1188	10	.50	30	ND	ND	ND	ND	100	28	64
Month Mean	39	-11	17	31	16	26	32	24	28	10465	14	3.15						100	7	68
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Utah Tube	Oven-Drying Method ③			Hydrograph (Hair) ①	Av. of Max & Min.	

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage :  
at 0-2" = 4%  
at 11-13" = 9%  
at 5-7" = 5%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month January Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.		Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean										
1	10	04	07												100	100	100		
2	04	-16	-06													100	100	100	
3	-14	-24	-19													N-D	N-D	N-D	
4	05	-24	-10													N-D	N-D	N-D	
5	16	00	08												99	32	66		
6	19	10	15												100	34	67		
7	15	08	12	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	22	61			
8	19	11	15	17	9	13	19	13	16	5177	27	.50	2	43	23	33			
9	25	16	21												55	30	43		
10	28	22	25												51	18	35		
11	26	17	22												84	21	53		
12	39	23	31												38	22	30		
13	27	14	21												100	35	68		
14	14	-08	03												100	96	98		
15	-02	-11	-07												100	100	100		
16	12	-02	05												100	100	100		
17	13	06	10												100	100	100		
18	16	05	11												N-D	N-D	N-D		
19	07	N-D	N-D	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	N-D	N-D	N-D			
20	N-D	N-D	N-D	22	13	18	24	16	20	6437	23	1.20	T	N-D	N-D	N-D			
21	-03	-14	-09												100	63	82		
22	08	-04	02												100	60	80		
23	13	07	10												100	100	100		
24	24	11	18	18	11	14	18	13	16	3338	34	.20	T	100	50	75			
25	19	13	16												100	73	87		
26	16	05	11												100	62	81		
27	11	03	07												100	82	91		
28	15	07	11												100	75	88		
29	08	-02	03	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	N-D	N-D	N-D			
30	13	02	08	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	49	75			
31	07	-03	02	19	11	15	19	15	17	3481	21	.60	3	28	N-D	100	100	100	
Month	39	-24	08	22	09	15	24	13	17	18433	25	2.50					100	18	76
Month Mean	13	03		19	11		20	14									91	62	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min					

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 5-7" = 10% at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month February Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.		Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean										
1	08	-06	01												100	63	82		
2	09	-06	02												100	57	79		
3	02	-07	-03												100	100	100		
4	06	-10	-02												100	100	100		
5	03	-11	-04												100	91	96		
6	16	00	08												100	63	82		
7	20	10	15	16	9	13	17	11	14	4322	25	.40	3	91	65	78			
8	17	10	14												89	52	71		
9	20	-10	05	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	50	75			
10	07	-11	-02												100	62	81		
11	19	06	13												80	41	61		
12	20	09	15												100	50	75		
13	13	-05	04												100	50	75		
14	15	-05	05	17	9	13	18	11	15	3559	22	.20	0	100	21	61			
15	18	09	14												100	23	62		
16	20	12	16												100	43	72		
17	18	04	11												100	100	100		
18	09	03	06												100	100	100		
19	10	06	08												100	100	100		
20	12	06	09												100	100	100		
21	23	09	16	18	9	14	18	12	15	4477	27	1.20	2	100	37	69			
22	18	04	11												100	81	91		
23	14	06	10												100	100	100		
24	19	01	10												100	100	100		
25	06	-03	02												100	100	100		
26	10	04	07												N-D	N-D	N-D		
27	07	03	05	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	N-D	N-D	N-D			
28	17	03	10	18	12	15	18	14	16	4108	24	.45	3	23	N-D	N-D	N-D		
29																			
30																			
31																			
Month	23	-11	07	18	9	13	18	11	15	16466	24	2.25					100	21	84
Month Mean	13	01		17	10		18	12									98	70	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min					

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 5-7" = 10% at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month March Year 1959

UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"			Relative Humidity			
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			% Dry Wt.	Max.	Min.	Mean	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean											
1	19	11	15														100	47	74	
2	15	03	09														N-D	N-D	N-D	
3	12	-03	05														N-D	N-D	N-D	
4	N-D	N-D	N-D														N-D	N-D	N-D	
5	N-D	N-D	N-D														N-D	N-D	N-D	
6	N-D	N-D	N-D														N-D	N-D	N-D	
7	N-D	N-D	N-D	17	10	14	18	12	15	4631	28	35	2			N-D	N-D	N-D		
8	09	00	05													100	100	100		
9	11	03	07													100	100	100		
10	11	-04	04													100	100	100		
11	03	-07	-02													100	100	100		
12	18	01	10													100	71	86		
13	17	07	12													100	59	80		
14	08	-10	-01	16	10	13	17	11	14	4299	25	70	2			100	93	97		
15	-03	-07	-05													100	85	93		
16	11	-06	03													100	96	98		
17	23	07	15													100	50	75		
18	23	13	18													100	50	75		
19	21	04	13													100	76	88		
20	16	02	09													100	100	100		
21	19	08	14													100	26	63		
22	23	12	18													66	37	52		
23	24	14	19	21	08	14	N-D	11	N-D	5235	24	.40	2			100	55	78		
24	25	09	17													100	62	81		
25	11	04	08													100	100	100		
26	14	04	09													100	100	100		
27	25	09	17													100	28	64		
28	14	08	11													100	82	91		
29	16	04	10													100	82	91		
30	23	05	14													100	89	95		
31	16	10	13	22	16	19	21	17	19	3803	20	.50	2	37	N-D	100	100	100		
Month Mean	25	-10	10	22	08	15	21	11	16	17988	24	1.95				100	26	87		
Key	Thermograph (Bourdon Tube) ①	Av of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygrograph (Hair) ④	Av of Max & Min						

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 5-7" = 10%  
at 11-13" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month April Year 1959

UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"			Relative Humidity			
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			% Dry Wt.	Max.	Min.	Mean	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean											
1	20	10	15													100	100	100		
2	28	16	22													100	100	100		
3	30	15	23													100	39	70		
4	36	25	31	25	18	21	23	18	21	2807	29	.20	0	37	N-D	66	35	51		
5	39	24	32													59	33	46		
6	39	20	30													100	28	64		
7	30	00	15													100	38	69		
8	06	-03	02													100	100	100		
9	02	-06	-02													100	100	100		
10	05	-05	00													100	100	100		
11	04	-03	01	29	21	25	27	22	25	2441	15	.40	4			100	95	98		
12	17	-02	08													99	35	68		
13	28	14	21													42	22	32		
14	33	19	26													100	40	70		
15	27	11	19													100	49	75		
16	22	07	15													100	35	68		
17	26	08	17													100	35	68		
18	25	07	16	25	19	22	24	20	22	2941	18	.40	4	21	10	100	57	79		
19	14	06	10													100	100	100		
20	16	01	09													100	100	100		
21	11	02	07													100	100	100		
22	24	08	16													100	63	82		
23	31	20	26													83	52	68		
24	37	25	31													71	32	53		
25	39	28	34	27	20	24	26	N-D	N-D	2898	17	.40	T			61	24	43		
26	27	21	24													100	59	80		
27	22	13	18													100	96	98		
28	20	11	16													100	100	100		
29	30	14	22													100	59	80		
30	44	23	34	30	23	27	27	N-D	N-D	3451	29	.30	T	42	22	90	21	56		
31																				
Month Mean	44	-06	18	30	18	24	27	18	22	14538	20	1.70				100	21	77		
Key	Thermograph (Bourdon Tube) ①	Av of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygrograph (Hair) ④	Av of Max & Min						

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 5-7" = 10%  
at 11-13" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month May Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.		Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean									
1	44	30	37												90	28	59	
2	44	26	35												85	33	59	
3	29	23	26												100	64	82	
4	30	16	23												100	100	100	
5	23	13	18												100	65	83	
6	27	18	23												100	44	72	
7	40	17	29												100	36	68	
8	35	22	29												100	53	77	
9	29	20	25	31	26	29	30	25	28	3225	15	1.00	2		100	45	73	
10	26	10	18												100	53	77	
11	39	22	31												82	29	56	
12	44	28	36												100	25	63	
13	45	25	35												100	31	66	
14	43	25	34												100	38	69	
15	44	27	36												100	22	61	
16	40	27	34	33	27	30	32	28	30	3220	19	.20	0		100	20	60	
17	37	23	30												91	40	66	
18	39	23	31												100	38	69	
19	31	21	26												100	46	73	
20	31	15	23												100	67	84	
21	25	16	21												100	63	82	
22	28	17	23												100	83	92	
23	38	24	31	35	31	33	32	29	31	2197	13	1.50	12		100	33	67	
24	40	30	35												65	34	50	
25	38	20	29												100	35	68	
26	30	19	25												100	50	75	
27	39	27	33												100	21	61	
28	43	24	34												100	18	59	
29	42	30	36												100	19	60	
30	40	24	32												100	16	58	
31	36	22	29	35	31	33	33	31	32	2730	14	.10	T	49	23	100	49	75
Month	45	10	29	35	26	31	33	25	30	11372	15	2.80			100	16	69	
Month Mean	36	22		33	29		32	28							97	42		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 5-7" = 10%  
 at 11-13" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
 and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month June Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.		Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean										
1	38	22	30												100	22	61		
2	42	27	35												96	18	57		
3	43	32	38												60	23	42		
4	44	31	38												99	31	65		
5	50	33	42												51	20	36		
6	57	38	48	41	31	36	34	32	33	1333	9	.10	0		55	21	38		
7	57	43	50												39	24	32		
8	52	39	46												100	25	63		
9	55	39	47												75	14	45		
10	54	40	47																
11	54	37	46																
12	57	39	48																
13	58	42	50																
14	53	39	46																
15	54	40	47	48	36	42	42	34	38	2757	13	.10	0		100	15	58		
16	54	38	46												100	35	68		
17	53	37	45												100	34	67		
18	55	39	47												100	29	65		
19	53	35	44												100	30	65		
20	49	36	43												100	58	79		
21	47	36	42												100	45	73		
22	52	39	46												100	38	69		
23	54	40	47	49	40	44	43	40	42	1799	10	1.02	0		54	29	42		
24	55	38	47												100	31	66		
25	55	40	48												77	33	55		
26	52	31	42												100	34	67		
27	42	26	34												100	36	68		
28	46	27	37												100	50	75		
29	49	35	42												100	36	68		
30	39	27	33	49	37	43	44	39	41	2545	15	.63	0		42	26	100	33	67
31																			
Month	58	22	43	49	31	41	44	32	38	8434	12	1.85			100	14	60		
Month Mean	51	36		47	36		41	36							88	31			
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min	Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min					

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 5-7" = 10%  
 at 11-13" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
 and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month July Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"		Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Average mph			Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.	Mean									
1	51	27	39												100	25	63	
2	53	39	46												78	17	48	
3	49	33	41												100	38	69	
4	46	33	40												97	42	70	
5	50	36	43												66	31	49	
6	53	41	47	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	45	18	32		
7	53	40	47	48	38	43	43	39	41	2575	16	.65	0	69	40	55		
8	49	31	40												69	30	50	
9	51	30	41												52	24	38	
10	48	36	42												54	25	40	
11	52	34	43												64	26	48	
12	53	40	47												94	30	62	
13	54	40	47	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	70	34	52		
14	54	38	46	53	40	46	47	42	44	1968	12	.00	0	82	45	64		
15	54	38	46												100	45	73	
16	48	36	42												100	56	78	
17	51	36	44												100	37	69	
18	50	36	43												100	37	69	
19	48	36	42												100	44	72	
20	49	38	44	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	68	37	53		
21	54	41	48	53	42	47	48	43	45	1715	10	.75	0	62	34	48		
22	54	39	37												91	38	65	
23	56	40	48												81	31	56	
24	56	43	50												71	33	52	
25	56	36	46												100	40	70	
26	48	36	42												100	42	71	
27	53	42	48												54	37	46	
28	57	44	51												48	25	37	
29	49	37	43												100	37	69	
30	52	40	46												100	43	72	
31	50	39	45	55	41	48	48	43	46	2020	8	1.30	0	41	21	100	44	72
Month Mean	57	27	45	55	38	46	48	39	44	8279	12	2.70			100	17	58	
Month Mean	52	37		52	40		46	42							81	35		

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 5-7" = 10%  
at 11-13" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month August Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in. Total Depth	Soil Moisture % Dry Wt. 5-7" 11-13"		Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Average mph			Max.	Min.	Mean		
				Max.	Min.	Mean	Max.	Min.	Mean									
1	47	39	43												100	52	76	
2	49	37	43												100	61	81	
3	49	37	43												100	52	76	
4	50	37	44												100	54	77	
5	50	35	43												100	35	68	
6	39	32	36	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	42	71		
7	53	36	45	51	41	46	46	43	45	2157	13	1.25	0	100	32	66		
8	55	42	49												42	20	31	
9	55	43	49												46	22	34	
10	54	42	48												47	25	36	
11	62	46	54												39	20	30	
12	54	40	47	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	34	67		
13	52	36	44	55	42	49	49	43	46	1658	11	.30	0	100	37	69		
14	45	35	40												100	45	73	
15	50	36	43												100	33	67	
16	52	38	45												68	27	48	
17	61	43	52	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	36	19	28		
18	57	44	51	54	42	48	48	44	46	1591	13	.10	0	88	25	57		
19	50	39	45												100	54	77	
20	52	39	46												100	55	78	
21	48	38	43												100	39	70	
22	52	38	45												85	37	63	
23	50	38	44												78	40	59	
24	54	38	46	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	46	73		
25	49	37	43	53	42	48	48	45	46	1523	9	.95	0	100	70	85		
26	46	35	41												100	35	68	
27	51	38	45												80	36	58	
28	54	42	48												50	28	39	
29	52	43	48												40	29	35	
30	49	38	44	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	82	27	55		
31	54	36	45	50	41	46	46	45	46	2219	15	.05	0	50	27	55		
Month Mean	62	32	45	55	41	47	49	43	46	9150	12	2.65			100	13	59	
Month Mean	51	39		53	42		47	44							81	37		

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 5-7" = 10%  
at 11-13" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month September Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean												
1	48	30	39														43	21	32		
2	47	33	40														34	25	29		
3	53	37	45														35	20	28		
4	57	44	51														31	22	27		
5	54	43	49														30	22	26		
6	58	44	51	50	41	46	47	43	45	2608	18	.05	0				28	20	24		
7	59	45	52														41	24	33		
8	55	42	49														37	18	28		
9	56	36	46														56	10	33		
10	58	42	50														30	18	24		
11	56	42	49														44	24	34		
12	54	41	48														43	22	34		
13	56	37	47														50	21	36		
14	53	38	46	53	42	47	49	45	47	1736	9	.00	0				94	37	66		
15	50	31	41														100	44	72		
16	34	28	31														100	68	84		
17	33	24	29														100	52	75		
18	40	24	32														100	35	68		
19	46	34	40	47	37	42	46	39	42	1924	16	.75	0				62	26	44		
20	38	28	33														100	34	67		
21	40	28	34														100	42	71		
22	37	27	32														100	52	76		
23	36	26	31														100	62	81		
24	29	19	24														100	100	100		
25	22	18	20														100	94	97		
26	25	18	22														100	100	100		
27	20	14	17														100	46	73		
28	18	10	14														100	91	96		
29	N-D	07	N-D											16			100	91	96		
30	N-D	N-D	N-D	42	33	38	40	33	37	4096	17	2.00				N-D	N-D	100	93	97	
31																					
Month	59	07	37	53	33	43	49	33	43	10364	15	2.80					100	10	55		
Month Mean	44	31		48	38		46	40									72	43			
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygrograph (Hair) ①	Av. of Max & Min						

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage

at 5-7" = 10%

at 11-13" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month October Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 inches			11-13 inches			Total Miles	Av. Vel. mph			5-7"	11-13"	Max.	Min.	Mean	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean												
1	27	09	18														100	87	94		
2	23	12	18														100	100	100		
3	25	12	19														100	100	100		
4	29	18	24														100	62	81		
5	33	21	27														80	38	59		
6	35	25	30														78	19	50		
7	25	09	17														100	58	79		
8	24	08	16														100	50	75		
9	26	18	22														100	46	73		
10	25	21	23	33	31	32	33	31	32	4920	20	.95	3				100	41	71		
11	31	21	26														100	50	75		
12	32	16	24														100	58	79		
13	25	15	20														100	40	70		
14	27	18	23														100	70	85		
15	34	24	29														96	31	64		
16	32	14	23														100	32	66		
17	34	16	25	32	30	31	32	31	32	4291	26	.30	3				100	14	57		
18	38	30	34														20	11	16		
19	45	26	36														42	08	25		
20	37	22	30														88	40	64		
21	29	21	25														60	42	51		
22	28	18	23	32	29	30	32	31	32	2427	20		7				100	46	73		
23	29	26	28														100	91	96		
24	35	24	30														100	81	91		
25	41	22	32														89	26	58		
26	30	17	24														82	13	48		
27	35	25	30														100	11	56		
28	29	20	25														100	92	96		
29	20	06	13														100	97	99		
30	20	02	11														100	70	85		
31	31	20	26	31	29	30	32	31	31	4548	21	1.20	5				70	21	46		
Month	45	02	24	33	29	31	33	31	32	16186	22	2.45					100	08	70		
Month Mean	30	18		32	30		32	31									94	50			
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygrograph (Hair) ①	Av. of Max & Min						

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage

at 5-7" = 10%

at 11-13" = 4%

Data collected for Front Range Ecology Project

Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission, and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month November Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7" II-13"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	29	23	26													84	26	55	
2	35	27	31													64	15	40	
3	27	16	22													100	61	81	
4	16	-10	03													100	85	93	
5	02	-14	-06																
6	17	00	09																
7	20	11	16	31	19	25	32	24	28	4483	27	.10	2			100	22	67	
8	20	10	15													97	38	68	
9	27	18	23													64	21	43	
10	24	14	19													83	46	65	
11	24	13	19													86	52	69	
12	26	17	22													58	42	50	
13	17	-02	08													100	32	66	
14	21	08	15	25	17	21	27	21	24	4950	29	.00	T			25	08	17	
15	20	11	16													52	25	39	
16	20	13	17													100	40	70	
17	26	14	20													68	26	47	
18	34	22	28													26	11	19	
19	30	16	23													86	12	49	
20	20	09	15													100	34	67	
21	24	08	16	26	17	22	26	21	23	5536	33	.05	0			100	30	65	
22	11	06	09													100	86	93	
23	20	11	16													100	100	100	
24	19	14	17													100	100	100	
25	15	-05	05													100	96	98	
26	-05	-10	-08													96	90	93	
27	03	-10	-04													94	90	92	
28	19	03	11													100	50	75	
29	12	05	09													100	58	79	
30	15	07	11	24	14	19	25	18	21	4533	21	.65	3	32	21	98	52	75	
31																			
Month	35	-14	14	31	14	22	32	18	24	19502	28	.80				100	08	66	
Month Mean	20	08		27	17		28	21								82	47		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage at 5-7" = 10%  
at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month December Year 1959

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, In. Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			5-7" II-13"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	22	10	16													91	40	66	
2	31	19	25													45	13	29	
3	29	10	20													100	10	55	
4	10	-10	00													100	30	65	
5	04	-11	-04	23	11	17	24	17	21	3379	30	.00	0			100	80	90	
6	18	02	10													86	31	59	
7	22	14	18													76	14	45	
8	22	12	17													60	10	35	
9	25	17	21													79	13	46	
10	20	11	16													100	82	91	
11	17	09	13													100	41	71	
12	24	06	15	21	13	17	22	16	19	4340	26	.20	T			100	09	55	
13	19	02	11													40	08	24	
14	18	02	10													100	10	55	
15	31	15	23													47	06	27	
16	34	22	28													42	21	32	
17	32	22	27													41	18	30	
18	22	14	18													100	33	67	
19	15	08	12													100	26	63	
20	22	15	19													47	26	37	
21	21	09	15													100	45	73	
22	16	07	12	22	15	19	22	18	20	3145	13	.00	2			100	49	75	
23	19	13	16													76	17	47	
24	26	12	19													86	40	63	
25	25	13	19													100	57	79	
26	15	05	10													100	100	100	
27	05	-05	00													100	100	100	
28	11	-03	04													100	24	62	
29	05	-01	02													80	68	84	
30	16	00	08													85	17	51	
31	19	02	11	23	12	18	23	15	19	4931	23	.20	2	35	23	100	25	63	
Month	34	-11	14	23	11	18	24	15	20	15795	21	.40				100	06	59	
Month Mean	20	08		22	13		23	17								84	34		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven Drying Method ③	Hygograph (Hair) ①	Av. of Max & Min				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage at 5-7" = 10%  
at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado



Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month January Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	04	-14	-05																	
2																				
3																				
4																				
5																				
6																				
7																				
8	↓	↓	↓																	
9	N-D	N-D	N-D	17	5	11	18	9	13	6241	29	↓	.40	T						
10	21	13	17																	
11	19	14	17																	
12	16	11	14																	
13	17	05	11																	
14	08	03	06																	
15	13	01	07	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
16	03	-12	-05	18	13	16	19	12	16	2604	16	↓	.00	3						
17	-06	-13	-10																	
18	-11	-18	-15																	
19	-08	-18	-13																	
20	-02	-08	-05																	
21	16	00	08																	
22	14	05	10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
23	07	03	05	15	7	11	17	10	13	4340	26	↓	.20	T						
24	14	05	10																	
25	20	11	16																	
26	12	08	10																	
27	12	02	07																	
28	15	-01	07																	
29	26	14	20																	
30	31	10	21	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
31	12	07	10	21	12	16	19	12	16	5154	27	↓	.50	T	N-D	35	N-D	24	03	14
Month	31	-18	06	21	5	13	19	9	14	18339	25	↓	1.10							
Month Mean	10	02		18	9		18	11												
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 10% at 5-7" = 4%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month February Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	09	04	07																	
2	13	06	10																	
3	08	02	05																	
4	15	02	09																	
5	13	00	07	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
6	08	03	06	20	13	17	19	13	16	2865	20	↓	.30	T						
7	20	05	13																	
8	18	15	17																	
9	16	02	09																	
10	06	00	03																	
11	06	-03	02																	
12	05	-04	01	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
13	16	02	09	18	10	14	19	13	16	4698	28	↓	.70	2	63	59	N-D	100	49	75
14	10	-08	01																	
15	04	-08	-02																	
16	02	-10	-04																	
17	-06	-12	-09																	
18	04	-12	-04																	
19	16	-04	06																	
20	02	-07	-03	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
21	04	-06	-01																	
22	-01	-16	-09																	
23	-02	-20	-11																	
24	-13	-17	-15																	
25	-03	-16	-10																	
26	-01	-10	-06																	
27	-02	-16	-09																	
28	-02	-15	-09																	
29	08	-10	-01	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
30																				
31																				
Month	20	-20	00	20	04	12	19	8	14	14500	21	↓	2.05							
Month Mean	06	-05		16	08		17	10												
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U.S. Atomic Energy Commission,  
and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter
- ② Rim of gauge 40 inches above ground
- ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 10% at 5-7" = 4%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month March Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean										
1	14	05	10												100	90	95		
2	05	-10	-03												100	93	97		
3	08	-08	00												100	96	98		
4	13	08	11												100	100	100		
5	15	09	12												100	100	100		
6	16	13	15												100	100	100		
7	24	16	20																
8	20	09	15																
9	15	09	12																
10	12	-02	05																
11	14	-02	06	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	N-D	N-D	N-D			
12	N-D	N-D	N-D	N-D	6	N-D	16	6	11	6002	21	1.75	T		100	96	98		
13	20	12	16												100	93	97		
14	18	-02	08												100	93	97		
15	-02	-08	-05												100	98	99		
16	00	-08	-04												100	92	96		
17	09	-08	01												100	94	97		
18	14	07	11	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	100	100			
19	22	12	17	N-D	10	N-D	17	10	14	4158	25	.60	3		100	66	83		
20	31	16	24												100	41	71		
21	29	19	24												68	34	51		
22	26	16	21												100	36	68		
23	27	18	23												68	29	49		
24	32	15	24												74	28	51		
25	29	16	23												74	48	63		
26	33	21	27	23	15	19	23	14	18	2903	18	.10	T		80	35	58		
27	36	22	29												88	40	64		
28	26	06	16												100	73	87		
29	13	02	08												100	68	84		
30	28	11	20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	80	42	61			
31	21	01	11	24	18	21	25	20	23	3229	27	.30	T	114	67	N-D			
Month Mean	36	-10	13	24	06	20	25	06	16	16302	22	2.75			100	28	82		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 10%  
 at 5-7" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month April Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max	Min	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max	Min	Mean
				Max	Min	Mean	Max	Min	Mean										
1	08	-01	04												100	100	100		
2	11	-01	05												100	100	100		
3	22	09	16												100	100	100		
4	27	16	22												100	80	90		
5	31	22	27	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	86	08	47			
6	34	22	28	24	09	17	24	23	23	3742	26	.05	T		53	30	42		
7	36	21	29												100	39	70		
8	30	20	25												100	54	77		
9	37	24	31												70	33	52		
10	40	20	30												98	18	58		
11	38	21	30												100	25	63		
12	28	18	23												100	47	74		
13	28	11	20												100	40	70		
14	33	18	26												80	31	56		
15	31	17	24	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	30	65			
16	19	-02	09	N-D	23	N-D	29	22	26	3885	16	.35	0	51	27	N-D			
17	25	-03	11												100	17	59		
18	35	19	27												34	22	28		
19	38	16	27												100	19	60		
20	34	09	22												100	42	71		
21	43	27	35												56	15	36		
22	45	31	38												38	20	29		
23	39	26	33	31	20	25	30	23	27	3946	24	.40	T		100	13	57		
24	26	04	15												100	38	69		
25	13	02	08												100	53	77		
26	24	08	16												100	61	81		
27	23	13	18												100	81	91		
28	20	12	16												100	100	100		
29	14	04	09	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	100	100			
30	21	03	12	31	26	28	31	27	29	2217	13	.55	4	81	57	N-D			
31															100	30	65		
Month Mean	45	-03	21	31	09	23	31	22	26	13790	19	1.35			100	08	69		
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 10%  
 at 5-7" = 4%

Data collected for Front Range Ecology Project  
 Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission,  
 and University of Colorado

Station No. 0-1 Altitude 12,300 ft Exposure Ridgetop Month May Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	23	11	17																
2	32	15	24																
3	26	17	22																
4	27	18	23																
5	22	14	18																
6	22	11	17																
7	32	20	26	28	25	26	28	25	27	3035	18	.95	3						
8	36	24	30																
9	38	27	33																
10	41	29	35																
11	46	31	39																
12	50	36	43																
13	46	32	39																
14	41	27	34	34	25	29	32	26	29	1554	9	.10	0	N-D	86	33	100	32	66
15	40	23	32																
16	34	22	28																
17	36	24	30																
18	28	14	21																
19	20	10	15																
20	25	11	18																
21	43	24	34	36	31	34	33	29	31	N-D	N-D	.90	T						
22	41	29	35																
23	45	29	37																
24	34	20	27																
25	33	20	27																
26	40	22	31																
27	44	24	34																
28	39	21	30																
29	42	24	33																
30	50	32	41																
31	45	35	40	42	31	36	36	31	33	3092	13	.15	0	14	44	N-D	60	24	42
Month	50	10	30	42	25	31	36	25	30	7681	13	2.10					100	14	63
Month Mean	36	22		35	28		32	28									86	40	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.			

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 10% at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. 0-1 Altitude 12,300 ft Exposure Ridgetop Month June Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	49	33	41																	
2	50	36	43																	
3	53	38	46																	
4	52	34	43																	
5	47	32	40																	
6	47	35	41																	
7	45	33	39	45	34	40	40	34	37	1917	11	.10	0	66	39	28	100	46	73	
8	40	30	35																	
9	46	30	38																	
10	44	29	36																	
11	41	28	35																	
12	32	27	30																	
13	48	30	39																	
14	49	32	41	43	34	39	40	35	37	2443	15	.45	0	78	65	15	100	32	66	
15	44	30	37																	
16	44	28	36																	
17	54	39	47																	
18	52	36	44																	
19	55	42	49																	
20	58	34	46																	
21	48	30	39	49	35	42	43	35	39	3435	20	.55	0							
22	50	35	43																	
23	45	29	37																	
24	48	30	39																	
25	55	37	46																	
26	54	42	48																	
27	54	43	49																	
28	60	44	52																	
29	59	46	53																	
30	54	38	46	52	39	46	49	40	45	2457	11	.20	0	47	29	17	100	22	61	
31																				
Month	60	27	42	52	34	41	49	34	39	10252	14	1.30					100	13	53	
Month Mean	49	34		47	35		43	36									79	27		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 10% at 5-7" = 4%

Data collected for Front Range Ecology Project  
Supported by Office of the Quartermaster General, U. S. Atomic Energy Commission, and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month July Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	58	45	52																
2	59	38	49																
3	50	33	42																
4	47	33	40																
5	45	31	38																
6	44	34	39	53	41	47	49	42	46	1375	10	90	0						
7	44	36	40																
8	50	37	44																
9	55	40	48																
10	57	40	49																
11	48	37	43																
12	44	36	40																
13	44	36	40	51	40	46	46	41	44	1270	8	55	0	88	56	24	100	69	85
14	52	39	46																
15	53	42	48																
16	55	42	49																
17	51	39	45																
18	52	37	45																
19	55	38	47	50	40	45	45	41	43	1199	9	20	0	52	30	20	100	67	81
20	58	42	50																
21	58	44	51																
22	55	43	49																
23	57	42	50																
24	54	39	47																
25	56	41	49																
26	60	46	53	55	42	49	47	43	45	1210	7	33	0	N-D	24	15	100	67	81
27	60	44	52																
28	57	47	52																
29	57	39	48																
30	55	39	47																
31	58	41	50	55	N-D	N-D	48	N-D	N-D	1228	10	50	0	69	21	13	100	47	74
Month	60	31	46	55	40	47	49	41	44	6269	9	2.48							
Month Mean	53	39		53	41		47	42											

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 17%  
at 11-13" = 10%  
at 5-7" = 4%

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Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month August Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	56	41	49																
2	58	45	52																
3	61	45	53																
4	59	46	53																
5	56	41	49																
6	57	43	50																
7	55	42	49																
8	55	37	46																
9	52	36	44	52	45	48	51	46	48	2448	11	40	0	39	24	14	100	37	69
10	53	39	46																
11	51	39	45																
12	57	42	50																
13	56	41	49																
14	53	35	44																
15	57	45	51																
16	55	19	37																
17	35	19	27	54	41	48	50	44	47	2536	13	65	T	42	34	N-D	100	50	75
18	51	30	41																
19	56	39	48																
20	55	38	47																
21	53	45	54																
22	56	37	47																
23	48	31	40																
24	50	30	40	53	35	44	48	41	44	2257	13	00	0	43	29	17	100	46	73
25	44	28	36																
26	54	34	44																
27	55	40	48																
28	52	39	46																
29	53	38	46																
30	58	41	50																
31	61	46	54	52	40	46	47	41	44	2215	13	50	0	37	16	9	100	47	36
Month	63	19	46	54	35	46	51	41	46	9456	13	1.55							
Month Mean	54	38		53	40		49	43											

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
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Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month September Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	60	46	53												65	36	51			
2	57	41	49												100	51	76			
3	57	44	51												90	50	70			
4	61	46	54												60	34	47			
5	59	42	51												85	39	62			
6	58	38	48												100	42	71			
7	50	37	44	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	45	73				
8	51	31	41	54	43	48	49	45	47	1787	9	.90	0	29	20	13	100	41	71	
9	47	29	38												100	28	64			
10	53	35	44												37	44	26			
11	43	31	37												100	29	65			
12	49	33	41												67	24	46			
13	49	33	41												100	24	62			
14	46	32	39												100	34	67			
15	40	28	34												100	63	82			
16	41	31	36												100	53	77			
17	40	29	35	49	37	43	47	39	43	2405	11	.60	T	62	15	24	100	53	77	
18	41	28	35												100	45	73			
19	49	33	41												65	29	47			
20	45	33	39												63	27	45			
21	47	27	37												100	41	71			
22	40	26	33												100	67	84			
23	31	25	28												100	65	83			
24	36	24	30	43	35	39	41	37	39	3126	19	.20	T	74	N-D	N-D	100	41	71	
25	48	31	40												82	34	58			
26	46	31	39												100	37	69			
27	47	33	40												60	28	44			
28	45	34	40												53	30	42			
29	40	27	34	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	45	73				
30	43	33	38	40	35	37	39	36	37	1824	13	.00	0	70	31	17	59	29	44	
31																				
Month	61	24	40	54	35	42	49	36	41	9142	13	1.70			100	24	63			
Month Mean	47	33	40	46	37	44	39	36	39						86	39				
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.						

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Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month October Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	42	29	36												71	40	56		
2	43	30	37												65	41	53		
3	46	31	39												55	29	42		
4	45	30	38												60	36	48		
5	44	30	37												57	32	45		
6	49	32	41												47	29	38		
7	48	32	40	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	46	31	39			
8	48	34	41	42	35	38	39	37	38	2713	14	.20	0	50	28	17	66	35	51
9	41	27	34												100	39	70		
10	39	27	33												100	49	75		
11	36	20	28												100	50	75		
12	31	18	25												100	53	77		
13	28	19	24												100	58	79		
14	24	11	18	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	100	100			
15	25	09	17	42	33	37	40	33	36	2229	13	.50	8	53	35	36	100	71	86
16	37	23	30												100	44	72		
17	27	22	25												100	79	90		
18	23	13	18												100	100	100		
19	22	13	18												100	100	100		
20	26	19	23												100	67	84		
21	30	20	25	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	53	77			
22	35	24	30	33	32	33	34	32	33	3066	18	.50	3	69	33	51			
23	37	28	33												60	28	44		
24	37	26	32												55	34	45		
25	34	24	29												55	33	44		
26	42	28	35												50	28	39		
27	35	22	29												100	49	75		
28	26	14	20												100	87	94		
29	16	-03	07	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	91	96			
30	15	-03	06	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	25	63			
31	18	10	14	32	26	29	33	31	32	4890	23	.15	2	182	44	N-D	100	20	60
Month	49	-03	28	42	26	34	40	31	35	12898	17	1.35			100	20	67		
Month Mean	34	21	30	37	31	36	33	32	33						83	51			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

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① Instruments located in standard Weather Bureau Shelter  
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③ Permanent wilting percentage: at 0-2" = 17% at 5-7" = 4%  
④ at 11-13" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month November Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	22	14	18														100	89	95
2	26	12	19														100	25	63
3	29	20	25														100	33	67
4	26	15	21	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	100	69	85
5	29	14	22	29	25	27	33	29	31	3482	29	.25	2				100	21	61
6	37	23	30														89	51	70
7	29	12	21														100	61	81
8	13	01	07														100	100	100
9	13	-02	06														100	68	84
10	19	10	15														78	33	56
11	24	15	20	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	55	25	40
12	25	18	22	30	23	26	32	26	29	4494	26	.35	2				60	37	49
13	24	15	20														76	37	57
14	25	10	18														100	27	64
15	10	-03	04														100	91	96
16	13	00	07														100	67	84
17	19	09	14														100	25	63
18	25	18	22														31	20	26
19	22	10	16														100	25	63
20	26	13	20	∇	∇	∇	∇	∇	∇	4606	24	.05	T				43	10	27
21	30	14	22														100	24	62
22	17	07	12														100	25	63
23	22	14	18														67	27	47
24	26	18	22														50	37	49
25	35	21	28														62	26	44
26	29	23	26														35	25	30
27	28	-01	14														100	31	66
28	N-D	-06	N-D														N-D	N-D	N-D
29	N-D	N-D	N-D	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	N-D	N-D	N-D
30	N-D	N-D	N-D	27	16	21	27	20	24	7128	30	.00	T	61	31	26	N-D	N-D	N-D
31																			
Month Mean	37	-06	16	30	16	24	33	20	28	19710	27	.65					100	10	62
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.			

- ① Instruments located in standard Weather Bureau Shelter  
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 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 10%  
 at 5-7" = 4%

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Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month December Year 1960

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	31	20	26														55	18	37
2	29	21	25														100	28	64
3	28	13	21														100	43	72
4	13	-04	05														100	100	100
5	-03	-12	-08														N-D	N-D	N-D
6	08	-13	-03														N-D	N-D	N-D
7	22	08	15														100	28	64
8	31	16	24														63	23	43
9	25	06	16	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	100	33	67
10	16	01	09	25	17	21	26	18	22	3610	15	.40	3				100	32	66
11	32	10	21														100	40	70
12	35	11	23														48	23	36
13	27	16	22														43	21	32
14	23	11	17														55	22	39
15	11	00	06														100	17	59
16	12	03	08	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	100	12	56
17	10	04	07	21	14	17	22	17	20	5505	33	.00	T				100	100	100
18	16	10	13														100	100	100
19	18	01	10														100	97	99
20	02	-01	01														100	100	100
21	07	00	04																
22	14	05	10																
23	22	11	17	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇	∇
24	26	19	23	18	13	16	20	16	18	5338	32	.60	T				N-D	N-D	N-D
25	19	08	14														100	34	67
26	13	09	11														100	25	63
27	09	-04	03														100	100	100
28	05	-01	02														100	41	71
29	15	02	09														87	34	61
30	18	02	10														100	35	68
31	13	-03	05	18	12	15	20	15	17	4299	25	.00	2	57	34	16	100	24	62
Month Mean	35	-13	12	25	12	17	26	15	19	18752	25	1.00					100	12	68
Month Mean	18	05		21	14		22	16									90	45	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.			

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 10%  
 at 5-7" = 4%

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Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month January Year 1961  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	-2	-8	-5													100	100	100	
2	4	-7	-2													100	50	75	
3	20	3	12													52	16	34	
4	14	8	11													30	10	20	
5	24	9	16													33	6	20	
6	25	14	20													68	5	37	
7	26	15	20	15	8	12	19	11	15	2990	18	.00	0			50	29	40	
8	25	17	21													37	16	27	
9	28	14	21													37	12	25	
10	22	6	14													92	28	60	
11	30	12	21													72	6	39	
12	24	11	18													68	10	39	
13	11	3	7													100	31	66	
14	9	3	6	20	13	17	20	14	17	3838	23	.00	T			100	100	100	
15	18	9	14													100	100	100	
16	22	13	18													100	12	56	
17	26	16	21													18	9	14	
18	19	-2	8													100	14	57	
19	8	-2	3													99	8	59	
20	9	2	6													97	20	59	
21	17	7	12	18	11	15	18	14	16	4993	30	.50	0			42	24	33	
22	18	10	14													37	26	32	
23	28	17	22													34	12	23	
24	30	11	20													51	20	36	
25	17	5	11													100	51	75	
26	6	-6	0													100	100	100	
27	13	-3	5													100	80	90	
28	10	0	5													86	51	69	
29	14	1	8																
30	18	11	14																
31	28	18	23	19	10	15	19	12	16	6245	26	.50	0	43	21	14			
Month	30	-8	12	20	8	15	20	11	16	18066	24	1.00				100	6	53	
Month Mean	18	7		18	11		19	13								72	34		

Data collected for Front Range Ecology Project  
 Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 0-2" = 17%      at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month February Year 1961  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	17	5	11													100	28	64	
2	15	3	9													100	50	75	
3	14	4	9													100	68	84	
4	9	3	6	19	13	16	19	15	17	2678	28	.15	2			100	82	91	
5	11	0	6													100	35	68	
6	24	4	14													46	12	29	
7	14	1	8													100	38	69	
8	15	1	8													100	19	60	
9	15	9	12													100	100	100	
10	23	13	18													100	100	100	
11	29	23	26	19	12	16	19	13	16	3275	20	.00	2			100	36	68	
12	28	7	18													100	22	61	
13	14	7	11													100	42	71	
14	19	8	14													80	25	53	
15	25	17	21													ND	ND	ND	
16	26	14	20													100	37	69	
17	16	5	11													100	100	100	
18	6	-2	2	23	16	20	22	18	20	3447	20	.30	4			100	98	99	
19	9	-4	3													100	28	64	
20	19	2	11													100	56	78	
21	30	6	18													100	19	60	
22	20	4	12													100	19	60	
23	5	-8	-2													100	92	96	
24	11	-8	2													100	98	99	
25	13	7	10													100	100	100	
26	7	-6	1													100	100	100	
27	4	-9	-3													100	61	81	
28	3	-4	-1	20	12	16	21	13	17	4925	21	1.10	2	ND	ND	ND	100	87	94
29																			
30																			
31																			
Month	30	-9	10	23	12	17	22	13	18	14325	21	1.55				100	12	77	
Month Mean	16	4		20	13		20	15								97	57		

Data collected for Front Range Ecology Project  
 Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 0-2" = 17%      at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month March Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	15	-3	6																	
2	19	12	16																	
3	18	3	11																	
4	12	0	6	19	11	15	18	14	16	2424	25	.20	4							
5	10	0	5																	
6	15	2	9																	
7	4	-3	1																	
8	13	-6	4																	
9	28	10	19																	
10	17	7	12																	
11	17	6	12	19	11	15	19	13	16	3436	21	.30	4							
12	9	-3	3																	
13	21	8	15																	
14	25	14	20																	
15	29	17	23																	
16	31	16	24																	
17	20	11	16																	
18	11	5	8	26	14	20	24	16	20	3580	21	.50	13							
19	23	4	14																	
20	17	2	10																	
21	10	0	5																	
22	22	6	14																	
23	38	18	28																	
24	29	22	26																	
25	27	12	20	27	16	22	25	18	22	3180	19	.50	T							
26	13	4	9																	
27	15	7	11																	
28	8	-1	4																	
29	27	-1	13																	
30	25	7	16																	
31	17	7	12	27	20	24	26	21	24	1516	11	.50	4	78	52	ND	100	82	91	
Month Mean	38	-6	13	27	11	19	26	13	20	14136	19	2.00						100	20	88
Month Mean	19	6		24	14		22	16										99	76	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④	Av. of Max. & Min.			

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 5-7" = 10%  
 at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month April Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	21	14	18																	
2	24	15	20																	
3	30	19	25																	
4	28	8	18																	
5	15	2	9																	
6	17	1	9																	
7	25	8	17																	
8	9	-1	4	25	17	21	25	20	23	3842	20	1.30	4							
9	13	3	8																	
10	21	8	15																	
11	10	4	7																	
12	25	10	18																	
13	22	8	15																	
14	9	-3	3																	
15	10	-3	4	24	16	20	23	19	21	4074	24	.85	2							
16	18	9	14																	
17	29	15	22																	
18	37	24	31																	
19	41	25	33																	
20	26	16	21																	
21	27	19	23																	
22	36	23	30	29	17	23	27	18	23	3439	21	.50	T							
23	25	7	16																	
24	17	5	11																	
25	13	5	9																	
26	15	8	12																	
27	23	12	18																	
28	29	18	24																	
29	37	24	31																	
30	36	26	31	29	20	25	27	21	24	3970	21	.70	0	75	33	21	80	24	52	
31																				
Month Mean	41	-3	17	29	16	22	27	18	23	15325	21	3.35						100	16	79
Month Mean	23	11		27	18		26	20										94	63	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ④	Av. of Max. & Min.			

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 5-7" = 10%  
 at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado



Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month May Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean		
1	36	20	28																93	34	64
2	39	29	34																52	33	42
3	31	23	27																100	50	75
4	31	21	26																100	68	84
5	25	14	20																100	80	90
6	24	13	18	31	27	29	30	25	28	2197	15	.40	T						100	44	72
7	25	16	20																100	68	84
8	24	16	20																100	66	83
9	40	20	30																91	30	60
10	47	32	40																38	14	26
11	50	35	42																18	8	13
12	40	24	32																100	16	58
13	24	15	20																100	100	100
14	24	18	21	32	26	29	31	27	29	3784	19	.70	2						100	79	90
15	30	20	25																100	54	77
16	32	18	25																100	40	70
17	33	17	25																100	21	60
18	44	29	36																90	14	52
19	49	33	41																64	12	38
20	41	23	32																100	20	60
21	39	23	31	32	30	31	32	29	30	2538	15	.90	T						100	40	70
22	45	28	36																100	25	62
23	49	32	40																67	16	42
24	45	31	38																100	28	64
25	36	25	30																100	60	80
26	45	25	35																100	26	63
27	48	33	40																54	18	36
28	49	33	41																86	20	53
29	47	32	40																100	34	67
30	49	33	41																100	21	60
31	50	32	41	42	31	36	36	31	34	2168	9	.40	0					56	36	20	
Month Mean	38	25	32	42	26	31	36	25	30	10687	14	2.40							100	8	63
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.							

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 5-7" = 10% at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month June Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity					
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean			
1	37	29	33																100	22	61	
2	32	28	30																100	44	72	
3	29	25	27																100	99	100	
4	32	25	28																100	60	80	
5	38	28	33																100	45	72	
6	38	28	33																100	54	77	
7	41	32	36																100	40	70	
8	48	34	41																78	26	52	
9	55	38	46	44	31	38	38	31	34	3003	14	2.20	0						50	18	34	
10	55	40	48																60	18	39	
11	52	40	46																67	24	46	
12	53	41	47																38	18	28	
13	49	31	40																100	28	64	
14	41	27	34																100	42	71	
15	35	25	30																100	42	71	
16	47	30	38	44	36	40	40	35	38	1347	8	.50	0						93	18	56	
17	51	36	44																60	18	39	
18	50	38	44																46	26	36	
19	48	30	39																100	38	69	
20	50	32	41																96	19	58	
21	57	43	50																29	12	20	
22	55	38	46	48	37	42	42	37	40	1673	12	.30	0						84	8	46	
23	53	38	46																80	21	50	
24	48	35	42																100	50	75	
25	50	37	44																98	24	61	
26	53	43	48																44	23	34	
27	57	43	50																70	27	48	
28	56	43	50																70	34	52	
29	59	43	51																60	22	41	
30	54	38	46	51	39	45	45	40	42	1973	10	.20	0						100	46	73	
31																						
Month Mean	59	25	41	51	31	41	45	31	38	7996	11	3.20							100	8	56	
Month Mean	47	35		47	36		41	36											81	32		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.								

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 5-7" = 10% at 11-13" = 4%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month July Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	53	37	45												100	26	63			
2	54	36	45												100	11	56			
3	56	44	50												44	25	34			
4	55	39	47												100	36	68			
5	53	39	46												100	34	67			
6	52	40	46												100	38	69			
7	52	37	44	52	41	46	47	42	44	1517	9	.80	0	79	44	19	100	48	74	
8	51	38	44												100	40	70			
9	51	38	44												100	14	57			
10	51	35	43												81	38	60			
11	47	30	38												100	29	64			
12	46	30	38												100	44	72			
13	51	38	44												100	36	68			
14	48	36	42	51	40	46	46	42	44	1620	10	.20	0	58	54	19	100	19	60	
15	51	37	44												91	33	62			
16	56	41	48												74	22	48			
17	60	45	52												44	20	32			
18	54	43	48												79	30	54			
19	54	41	48												58	30	44			
20	46	32	39												100	46	73			
21	34	29	32	52	39	46	47	42	44	2101	12	1.35	5	48	27	16	100	70	85	
22	46	30	38												80	32	56			
23	55	42	48												50	20	35			
24	58	40	49												100	20	60			
25	57	41	49												100	30	65			
26	57	43	50												100	38	69			
27	59	44	52												88	32	60			
28	57	44	50												100	35	68			
29	59	43	51												100	33	66			
30	53	38	46												100	62	81			
31	50	40	45	51	37	44	46	39	42	2521	15	2.05	0	86	35	16	100	58	79	
Month	60	29	45	52	37	45	47	39	44	7759	10	4.40						100	11	62
Month Mean	52	38		52	39		46	41							90	34				

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 0-2" = 17%      at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month August Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	51	40	46												100	72	86			
2	48	36	42												100	63	82			
3	50	37	44												100	33	66			
4	54	40	47	51	43	47	46	44	45	684	7	1.00	0	78	47	27	92	8	50	
5	57	42	50												53	17	35			
6	57	43	50												59	35	47			
7	59	42	50												100	33	66			
8	55	42	48												87	44	66			
9	53	39	46												100	30	65			
10	52	41	46	55	43	49	48	45	46	1418	8	.30	0	95	29	21	100	50	75	
11	51	40	46												100	37	68			
12	50	38	44												100	48	74			
13	49	36	42												100	56	78			
14	54	39	46												100	28	64			
15	52	42	47												100	37	68			
16	55	41	48												100	41	70			
17	48	36	42	51	42	46	46	44	45	2203	13	1.10	0	141	28	20	100	59	80	
18	50	37	44												100	34	67			
19	50	35	42												100	17	58			
20	55	36	46												100	15	58			
21	46	35	40												100	59	80			
22	50	37	44												100	35	68			
23	55	38	46												90	21	56			
24	54	41	48	52	42	47	46	45	45	1499	9	.40	0	84	34	24	91	41	66	
25	49	40	44												100	68	84			
26	48	38	43												100	53	76			
27	53	39	46												100	37	68			
28	56	42	49												69	27	48			
29	55	39	47												100	31	66			
30	44	36	40												100	62	81			
31	44	31	38	51	41	46	46	44	45	1670	10	.70	0	96	69	23	100	61	80	
Month	59	31	45	55	41	47	48	44	45	7474	10	3.50						100	8	68
Month Mean	52	39		52	42		46	44							95	40				

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage:  
 at 0-2" = 17%      at 11-13" = 4%  
 ② Rim of gauge 40 inches above ground      at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month September Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	45	31	38																	
2	39	19	29																	
3	22	14	18																	
4	25	16	20																	
5	34	25	30																	
6	47	33	40																	
7	47	38	42																	
8	48	37	42	47	35	41	43	37	40	3260	17	1.50	T	130	65	21	60	34	47	
9	48	32	40																	
10	41	31	36																	
11	46	30	38																	
12	40	28	34																	
13	45	28	36																	
14	44	29	36																	
15	48	37	42																	
16	45	34	40	44	37	40	40	39	40	2956	17	.50	0	97	46	ND	100	20	40	
17	49	34	42																	
18	49	30	40																	
19	35	24	30																	
20	24	21	22																	
21	30	19	24																	
22	27	20	24																	
23	25	17	21	44	34	39	40	35	38	2802	17	3.50	T	132	61	22	100	84	92	
24	25	12	18																	
25	30	15	22																	
26	31	22	26																	
27	34	25	30																	
28	41	30	36																	
29	32	8	20																	
30	21	8	14	34	32	33	34	33	34	4404	27	.40	2	106	51	27	100	24	62	
31																				
Month Mean	49	8	31	47	32	38	43	33	38	13422	19	5.90					100	1	70	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④			Av. of Max. & Min.		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: (4) Extrapolated from C-1  
 ② Rim of gauge 40 inches above ground      at 0-2" = 17%  
 at 5-7" = 10%      at 11-13" = 4%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month October Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	20	12	16																	
2	29	12	20																	
3	36	27	32																	
4	38	28	33																	
5	40	30	35																	
6	38	29	34																	
7	43	25	34	32	31	32	32	32	32	3667	22	.20	0							
8	37	24	30																	
9	39	11	25																	
10	19	9	14																	
11	35	17	26																	
12	31	22	26																	
13	37	21	29																	
14	47	30	38	32	30	31	32	32	32	3454	21	.20	0	54	35	21	53	4	28	
15	48	31	40																	
16	49	33	41																	
17	39	29	34																	
18	37	25	31																	
19	43	29	36																	
20	34	27	30																	
21	42	27	34	34	31	32	32	32	32	3111	19	.00	0							
22	29	11	20																	
23	22	10	16																	
24	22	15	18																	
25	33	15	24																	
26	35	24	30																	
27	26	18	22																	
28	24	11	18																	
29	22	4	13																	
30	34	19	26																	
31	37	19	28	32	28	30	32	30	31	4667	19	.60	3	94	35	27	ND	ND	ND	
Month Mean	49	4	28	34	28	31	32	30	32	14899	20	1.00					100	4	55	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④			Av. of Max. & Min.		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: (4) Extrapolated from C-1  
 ② Rim of gauge 40 inches above ground      at 0-2" = 17%  
 at 5-7" = 10%      at 11-13" = 4%

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month November Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	22	9	16																	
2	10	-7	2																	
3	12	-4	4																	
4	12	-1	6	31	23	27	31	24	28	2676	28	.40		3			100	50	75	
5	16	-1	8														100	12	56	
6	32	14	23														30	6	18	
7	29	14	22														36	12	24	
8	31	22	26														24	16	20	
9	32	21	26														69	13	41	
10	30	22	26														70	47	58	
11	27	13	20	27	21	24	29	25	27	2056	12	.10		2			100	42	71	
12	13	-1	6														100	100	100	
13	18	-5	6														100	35	68	
14	28	8	18														65	8	36	
15	29	9	19														100	8	54	
16	23	17	20														100	42	71	
17	27	5	16														100	34	67	
18	16	3	10	26	23	24	27	23	25	2294	13	.50		2			100	23	62	
19	14	6	10														100	25	62	
20	18	11	14														100	26	63	
21	14	-6	4														100	66	83	
22	12	-5	4																	
23	19	11	15																	
24	22	15	18																	
25	22	15	18	24	17	20	23	20	22	4852	29	.25		T			100			
26	22	12	17														100	100	100	
27	23	11	17														100	35	68	
28	22	14	18														100	16	58	
29	25	18	22														50	14	32	
30	22	15	18	23	19	21	22	20	21	2970	18	.35		0	71	34	20	100	50	75
31																				
Month	32	-7	15	31	17	24	31	20	23	14848	16	1.60					100	6	59	
Month Mean	21	9		26	21		26	22									85	34		
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ①	Av. of Max. & Min.		

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month December Year 1961

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	17	13	15														100	38	69
2	22	16	19														72	27	50
3	19	3	11														100	53	76
4	13	-1	6														100	47	74
5	13	5	9														100	77	88
6	8	4	6														100	100	100
7	10	-1	4														100	86	93
8	5	-15	-5														100	94	97
9	-3	-16	-10	23	14	18	22	16	19	4585	21	.60		3			100	98	99
10	-5	-14	-10														100	92	96
11	-2	-20	-11														100	89	94
12	-3	-20	-12														100	56	78
13	1	-4	-2														100	83	92
14	9	1	5														100	95	98
15	11	2	6														100	81	90
16	10	-3	4	17	5	11	17	9	13	4268	25	.30		T			100	97	98
17	8	-3	2														100	43	72
18	2	-8	-3														100	91	96
19	13	-6	4														100	100	100
20	18	12	15														100	77	88
21	18	-3	8														100	64	82
22	9	-7	1														100	59	80
23	15	4	10	14	7	10	14	9	12	5490	33	.80		2			100	55	78
24	22	12	17														82	27	54
25	21	11	16														100	31	66
26	12	-11	0														100	79	90
27	-7	-14	-10														100	91	96
28	5	-8	-2														100	100	100
29	9	5	7														100	100	100
30	8	5	6														100	100	100
31	15	3	9	16	7	12	16	10	13	5979	31	.50		2			44	27	26
Month	22	-20	4	23	5	13	22	9	14	20322	27	2.20					100	44	72
Month Mean	9	-2		18	8		17	11									99	73	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max & Min Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③			Hydrograph (Hair) ①	Av. of Max. & Min.	

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado



Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month March Year 1962  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Average mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	8	-5	2														99	50	75
2	12	2	7														100	44	72
3	4	-10	-3														100	84	92
4	12	-6	3														100	35	68
5	23	11	14														35	14	25
6	25	14	20														69	26	48
7	20	7	14														100	54	77
8	13	5	9														100	100	100
9	16	3	10	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	100	100
10	22	-6	8	18	8	13	16	11	14	5180	22	.80	5				100	74	87
11	-5	-10	-7														99	94	97
12	-2	-11	-6														99	74	87
13	3	-15	-6														99	48	74
14	5	-11	-3														100	34	67
15	10	-4	3														100	44	72
16	19	3	11	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	25	63
17	24	9	16	15	-4	6	15	9	12	3320	19	.40	T				100	38	69
18	16	6	11														100	50	75
19	23	7	15														100	46	73
20	13	6	10														100	100	100
21	12	5	8														100	100	100
22	13	3	8														100	94	97
23	17	6	12														100	68	84
24	15	3	9	18	12	15	16	13	14	3095	18	.10	3				100	26	63
25	21	10	16														100	29	65
26	27	4	16														84	31	58
27	30	20	25														53	30	42
28	30	4	17														100	29	65
29	14	0	7														ND	ND	ND
30	9	-4	2														ND	ND	ND
31	10	1	6	23	5	14	21	16	18	3880	23	.20	2	87	59	27	ND	ND	ND
Month Mean	30	-15	8	23	-4	12	21	9	15	15475	21	1.50					100	14	75
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Over-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.					

Data collected by Front Range Ecology Project  
 Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month April Year 1962  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Average mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	16	-6	5														100	80	90	
2	25	13	19														94	43	69	
3	26	16	21														100	46	73	
4	25	14	20														100	100	100	
5	17	12	14	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	100	100	
6	15	7	11	24	16	20	22	17	20	2295	16	.50	4				100	57	79	
7	18	5	12														100	100	100	
8	10	1	6														100	100	100	
9	18	7	12														100	100	100	
10	23	10	16														100	100	100	
11	17	5	11														100	96	98	
12	25	7	16														100	52	76	
13	32	17	24	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		75	21	48	
14	38	23	30	26	8	17	24	23	24	4580	24	.90	T				39	24	32	
15	43	31	37														36	19	28	
16	41	25	33														100	24	62	
17	41	28	34														54	18	36	
18	44	27	36														53	14	39	
19	46	31	38														31	18	25	
20	49	24	36														32	10	21	
21	36	18	27	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		100	28	64	
22	30	15	22	32	25	28	29	23	26	2195	11	.20	3				100	34	67	
23	40	22	31														51	12	32	
24	43	28	36														38	16	27	
25	44	28	36														60	21	41	
26	32	19	25														100	37	69	
27	32	15	24														100	33	67	
28	42	24	33														100	17	59	
29	25	7	16														100	99	100	
30	10	4	7	33	31	32	31	30	30	2920	15	.80	6	65	30	33	100	62	81	
31																				
Month Mean	49	-6	23	33	8	24	31	17	25	11990	17	2.40					100	10	66	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.	Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Over-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.						

Data collected by Front Range Ecology Project  
 Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month May Year 1962

UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	24	8	16														92	28	60
2	32	19	26														58	37	48
3	37	23	30														98	39	69
4	43	30	36														89	22	56
5	42	27	35	32	31	32	30	30	30	2590	22	.10	0				100	30	65
6	43	31	37														64	29	47
7	46	34	40														37	18	28
8	45	27	36														100	25	63
9	48	35	42														29	17	23
10	47	35	41														35	18	27
11	48	34	41														39	20	30
12	50	32	41	38	31	34	33	31	32	2570	15	.00	0				38	20	29
13	37	22	30														35	22	29
14	35	21	28														100	22	61
15	40	23	32														58	16	37
16	28	19	24														100	26	63
17	30	17	24														100	48	74
18	28	20	24														100	67	84
19	45	27	36	39	32	36	32	31	32	2790	16	.70	T				76	18	47
20	43	29	36														99	17	58
21	30	16	23														100	25	63
22	23	15	19														100	100	100
23	39	22	31														100	34	67
24	43	26	35														100	22	61
25	38	25	32														100	32	66
26	38	23	31	38	31	34	33	32	32	2565	15	.40	0				100	32	66
27	30	20	25														100	40	70
28	29	18	24														100	62	81
29	26	21	24														100	85	93
30	40	23	32														100	40	70
31	41	28	35	36	31	34	33	32	32	2520	21	1.10	0	84	21	14	100	44	72
Month	50	8	31	39	31	34	33	30	32	13035	18	2.30					100	16	58
Month Mean	38	24		37	31		32	31									82	34	

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17%  
 at 5-7" = 10%  
 at 11-13" = 4%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month June Year 1962

UNIVERSITY OF COLORADO -- INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean											
1	40	28	34														100	58	79	
2	40	27	34														100	40	70	
3	46	29	38														100	18	59	
4	44	29	37														100	16	58	
5	36	26	31														100	30	65	
6	39	28	34														100	34	67	
7	32	23	28														100	75	88	
8	27	20	24														100	60	80	
9	41	25	33	41	32	36	34	32	33	2111	11	1.00	T				85	28	57	
10	51	34	43														43	16	30	
11	51	33	42														100	16	58	
12	50	31	41														100	18	59	
13	54	38	46														62	19	41	
14	51	39	45														48	20	34	
15	46	29	38	45	32	38	38	32	35	1162	8	.00	0	54	26	ND	71	23	47	
16	32	22	27														100	31	66	
17	34	21	28														100	44	72	
18	47	28	38														89	26	58	
19	53	36	45														72	15	44	
20	52	36	44														67	26	47	
21	51	34	43														78	26	52	
22	49	31	40	46	33	40	39	34	36	2167	13	.20	0				100	33	67	
23	54	38	46														100	18	59	
24	53	41	47														100	22	61	
25	52	33	43														100	22	61	
26	55	35	45														100	18	59	
27	57	42	50														50	17	34	
28	55	42	49														79	22	51	
29	54	41	48														100	42	71	
30	52	40	46	48	37	42	42	38	40	1838	10	.40	0	61	52	40	100	56	78	
31																				
Month	57	20	40	48	32	39	42	32	36	7278	11	1.60					100	15	59	
Month Mean	47	32		45	34		38	34									88	30		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17%  
 at 5-7" = 10%  
 at 11-13" = 4%

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month July Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"				
1	54	36	45														100	37	68	
2	57	41	49														62	15	38	
3	55	42	49														56	29	42	
4	55	40	48														100	25	62	
5	58	41	50														76	18	47	
6	60	45	52	53	41	47	45	41	43	2455	17	.50		0			67	17	42	
7	58	41	50														100	28	64	
8	53	40	46														100	36	68	
9	57	43	50														42	13	28	
10	60	45	52														24	10	17	
11	60	45	52														100	12	56	
12	55	39	47	55	44	50	47	44	46	1376	10	.10		0	41	22	18	100	37	66
13	52	35	44														100	30	65	
14	43	32	38														84	41	62	
15	49	35	42														100	20	60	
16	51	36	44														100	23	62	
17	56	39	48														44	15	34	
18	56	42	49														64	26	45	
19	52	40	46	51	40	46	46	42	44	2383	14	.40		0			88	34	61	
20	57	39	48														54	16	35	
21	57	44	50														27	15	21	
22	58	38	48														100	16	58	
23	50	35	42														100	36	68	
24	48	37	42														97	34	66	
25	49	39	44														100	34	67	
26	49	34	42	53	42	48	47	44	46	1422	8	.40		0	32	14	10	100	61	80
27	49	36	42														100	50	75	
28	49	35	42														100	33	66	
29	54	37	46														100	25	62	
30	53	37	45														100	34	67	
31	48	33	40	52	41	46	45	43	44	1750	15	.20		0	ND	ND	ND	100	48	74
Month	60	32	46	55	40	47	47	41	44	9386	13	1.60						100	10	56
Month Mean	54	39		53	42		46	43									83	28		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17% at 11-13" = 4%  
 at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month August Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2" 5-7" 11-13"			Max.	Min.	Mean	
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"				
1	52	35	44														100	31	66	
2	54	37	46														67	24	46	
3	52	35	44														100	35	68	
4	49	35	42														100	33	66	
5	57	41	49														46	19	32	
6	58	39	49														39	22	30	
7	54	42	48	53	42	48	46	43	44	2432	14	.20		0			34	23	28	
8	59	43	51														41	31	36	
9	57	43	50														99	39	69	
10	57	42	50														68	35	52	
11	58	40	49														99	31	65	
12	57	43	50														76	44	60	
13	59	44	52														59	31	45	
14	59	46	52														49	27	38	
15	57	41	49	55	44	50	47	45	46	1966	10	.05		0	14	13	7	65	30	48
16	59	42	50														57	34	46	
17	58	43	50														87	45	66	
18	54	39	46														100	61	80	
19	50	35	42														100	51	76	
20	54	38	46														77	39	53	
21	52	38	45														100	47	74	
22	45	36	40	55	ND	ND	48	44	46	2220	13	.45		0			100	61	80	
23	45	29	37														100	61	80	
24	42	26	34														100	22	61	
25	52	36	44														33	20	26	
26	57	41	49																	
27	55	38	46																	
28	52	37	44																	
29	54	33	44																	
30	50	25	38																	
31	45	24	34	52	38	45	45	41	43	ND	ND	.10		0	36	12	12	100	32	66
Month	59	24	46	55	38	47	48	41	45	6618	13	.80						100	15	56
Month Mean	54	38		54	31		47	43									78	35		

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17% at 11-13" = 4%  
 at 5-7" = 10%



Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month September Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.										
1	51	33	42											43	17	30		
2	52	36	44											33	15	24		
3	51	38	44											26	20	23		
4	49	37	43											32	22	27		
5	54	39	46											30	23	26		
6	55	38	46											44	23	34		
7	45	31	38	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	40	70		
8	44	19	32	51	40	46	44	43	44	1989	10	.01	0	100	37	68		
9	30	15	22											85	25	55		
10	45	27	36											31	19	25		
11	51	37	44											37	24	30		
12	52	38	45											37	22	30		
13	56	38	47											46	29	38		
14	53	39	46	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	72	40	56		
15	54	38	46	48	35	42	42	39	40	3631	21	.00	0	56	36	46		
16	51	38	44											65	42	54		
17	53	39	46											46	27	36		
18	55	38	47											63	29	46		
19	52	37	44											100	39	70		
20	43	35	39											100	65	82		
21	44	31	38	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	67	84		
22	44	31	38	50	38	44	44	41	42	2313	14	.45	0	100	33	66		
23	45	30	38											100	35	67		
24	42	28	35											100	65	82		
25	40	28	34											100	43	72		
26	41	28	34											100	45	72		
27	47	28	38											100	40	70		
28	36	28	32											100	80	90		
29	32	22	27	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	95	98		
30	29	15	22	43	34	38	41	36	38	2754	14	.85	3	101	31	10		
31														100	41	70		
Month	56	15	39	51	34	42	44	36	41	10687	15	1.31		100	15	55		
Month Mean	46	32		48	37		43	40						72	38			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.			

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month October Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp. Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity				
	Max.	Min.	Mean	5-7 Inches			11-13 Inches				Total Miles	Av. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.										
1	37	23	30											100	51	76		
2	40	26	33											100	54	77		
3	42	28	35											82	38	60		
4	49	32	40											64	34	49		
5	44	18	31											100	46	73		
6	25	18	22	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	100	100		
7	33	23	28	39	33	36	36	34	35	2928	18	.30	0	100	76	88		
8	38	23	30											100	56	78		
9	44	30	37											74	42	58		
10	47	34	40											54	37	46		
11	48	32	40											49	38	44		
12	47	30	38	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	46	32	39		
13	47	33	40	38	32	35	35	34	34	3657	25	.10	0	43	30	36		
14	47	35	41											100	30	65		
15	35	17	26											100	100	100		
16	30	16	23											100	100	100		
17	29	25	27											100	72	86		
18	37	26	32											100	65	82		
19	31	21	26											100	90	95		
20	27	16	22	38	32	35	36	32	34	2122	13	.60	3	100	34	67		
21	33	24	28											100	76	88		
22	34	25	30											93	64	78		
23	32	25	28											84	70	77		
24	33	22	28											100	60	80		
25	34	24	29											64	39	52		
26	38	27	32	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	57	41	49		
27	33	19	26	32	29	30	32	32	32	4200	26	.00	0	100	17	58		
28	37	18	28											100	29	64		
29	41	29	35											69	22	46		
30	47	29	38											54	23	38		
31	34	21	28	32	29	30	32	32	32	ND	ND	.00	0	36	41	12		
Month	49	16	32	39	29	33	36	32	34	12907	20	1.00		100	17	68		
Month Mean	38	26		36	31		34	33						84	53			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.			

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month November Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	24	20	22													100	74	87	
2	29	21	25													100	71	86	
3	39	23	31													74	36	55	
4	39	28	34													86	26	56	
5	35	25	30													100	55	78	
6	25	11	18													100	39	70	
7	21	7	14													100	26	63	
8	31	21	26													42	21	32	
9	32	23	28													47	24	36	
10	27	12	20	32	26	29	31	31	31	ND	ND	.05	0		100	47	74		
11	22	9	16													100	48	74	
12	35	20	28													52	16	34	
13	33	27	30													86	17	56	
14	27	23	25													100	96	98	
15	23	13	18													100	100	100	
16	14	5	10													100	100	100	
17	15	4	10	29	25	27	29	29	29	31.87	19	.60	4		100	55	78		
18	10	1	6													100	72	86	
19	19	-1	9													100	100	100	
20	23	14	18													100	100	100	
21	20	14	17													100	100	100	
22	26	14	20													100	ND	ND	
23	25	11	18													97	24	60	
24	29	18	24	28	22	25	29	25	27	4000	24	.20	T		100	49	74		
25	25	18	22													100	69	84	
26	25	15	20													100	43	72	
27	30	18	24													97	44	70	
28	30	18	24													98	25	62	
29	32	21	26													60	24	42	
30	28	21	25	26	22	24	25	25	25	2762	19	.00	T	13	23	30	100	50	75
31																			
Month Mean	39	-1	21	32	22	26	31	25	28	9949	21	.85				100	16	72	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.			

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 17%  
at 5-7" = 10%  
at 11-13" = 4%

Data collected by Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month December Year 1962

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	23	15	19													100	90	95	
2	23	13	18													100	63	82	
3	19	8	14													100	100	100	
4	8	0	4													100	96	98	
5	19	1	10													100	88	94	
6	22	12	17													100	69	84	
7	19	11	15													100	86	93	
8	17	14	16	26	18	22	26	22	24	5584	29	.70	2		100	100	100		
9	21	14	18													100	44	72	
10	21	15	18													80	39	60	
11	21	14	18													81	56	68	
12	31	19	25													100	37	68	
13	30	21	26													73	27	50	
14	26	18	22													72	16	44	
15	33	19	26	24	19	22	23	21	22	4465	27	.10	0		100	27	64		
16	39	22	30													85	25	55	
17	28	19	24													81	28	54	
18	26	16	21													100	43	72	
19	21	13	17													100	100	100	
20	13	4	8													100	100	100	
21	11	2	6													100	100	100	
22	11	1	6	26	19	22	25	21	23	3197	19	.20	2		100	64	82		
23	9	3	6													100	100	100	
24	11	-13	-1													100	85	92	
25	-6	-18	-12													100	37	68	
26	1	-8	-4													100	33	66	
27	15	0	8													100	44	72	
28	12	4	8													100	25	62	
29	22	7	14													34	21	28	
30	26	16	21													ND	ND	ND	
31	23	14	18	20	10	15	20	14	17	5335	25	.30	0	72	23	16	ND	ND	ND
Month Mean	39	-18	14	26	10	20	26	14	22	18581	25	1.30				100	16	77	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.			

① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground

③ Permanent wilting percentage:  
at 0-2" = 17%  
at 5-7" = 10%  
at 11-13" = 4%

Data collected by Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month January Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	15	9	12																
2	33	12	22																
3	31	16	24																
4	16	6	11																
5	16	5	10	20	14	17	18	16	17	1776	15	.10	3				100	100	100
6	19	5	12																
7	23	7	15																
8	26	14	20																
9	14	8	11																
10	10	-14	-2																
11																			
12																			
13	-2	-34	-18	18	1	10	18	7	12	5083	26	.10	2				100	24	62
14	-6	-12	-9																
15	1	-7	-3																
16	4	0	2																
17	0	-3	-2																
18	3	-7	-2																
19	2	-15	-6	10	2	6	10	6	8	4078	29	.40	2				100	68	84
20	8	-6	1																
21	13	6	10																
22	11	0	6																
23	4	-5	0																
24	11	4	8																
25	6	-5	0	12	6	9	12	8	10	4686	32	.40	ND				100	100	100
26	-5	-18	-12																
27	2	-9	-4																
28	12	2	7																
29	12	8	10																
30	21	11	16																
31	23	19	21	13	4	8	13	8	10	3670	25	2.50	12	ND	ND	ND	100	100	100
Month	33	-34	5	20	1	10	18	6	12	19293	26	3.50					100	23	80
Month Mean	10	0		15	5		14	9									90	70	

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17% at 11-13" = 4%  
 at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month February Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	23	13	18																
2	13	9	11																
3	24	11	18																
4	26	18	22																
5	31	21	26																
6	41	20	30																
7	28	17	22																
8	22	11	16																
9	21	7	14	20	13	16	20	13	16	5564	26	2.30	T	29	21	19	100	62	81
10	14	-14	0																
11	-10	-16	-13																
12	5	-15	-5																
13	11	-4	4																
14	17	6	12																
15	10	2	6																
16	3	-1	1	20	10	15	19	13	16	2364	14	.40	T				100	100	100
17	10	1	6																
18	17	1	9																
19	11	3	7																
20	16	9	12																
21	11	6	8																
22	14	6	10																
23	11	5	8																
24	15	8	12																
25	9	4	6																
26	20	9	14																
27																			
28	12	-2	5	17	12	14	16	14	15	8290	29	1.10	2	ND	ND	ND	100	ND	ND
29																			
30																			
31																			
Month	41	-16	10	20	10	15	20	13	16	16218	24	3.80					100	42	90
Month Mean	16	5		19	12		18	13									100	80	

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17% at 11-13" = 4%  
 at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month March Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	9	1	5														100	100	100
2	6	-2	2														100	100	100
3	5	-8	-2														100	100	100
4	2	-10	-4														100	100	100
5																			
6																			
7	11	-8	2														100	88	94
8	8	3	6														100	70	85
9	16	5	10	15	9	12	15	11	13	5185	24	.30	T	51	39	32	100	33	66
10	22	6	14														100	27	64
11	9	2	6														ND	ND	ND
12	2	-6	-2														ND	ND	ND
13	0	-6	-3														ND	ND	ND
14	18	-1	8														ND	ND	ND
15	19	-2	8														ND	ND	ND
16	8	-3	2	17	9	13	15	12	14	3219	19	.40	T				100	ND	ND
17	19	8	14														100	64	82
18	13	6	10														100	100	100
19	9	2	6														100	100	100
20	22	7	14														100	62	81
21	29	16	22														66	27	46
22	35	17	26	24	11	18	19	9	14	2956	21	.30	ND			69	42	56	
23	32	19	26														100	44	72
24	24	10	17														100	46	73
25	24	6	15														100	22	61
26	29	16	22														44	28	36
27	37	17	27														62	31	46
28	36	13	24														100	42	71
29	29	10	20														100	18	59
30	37	21	29														100	52	76
31	39	23	31	29	18	24	25	20	22	4679	22	.30	0	20	19	9	82	32	57
Month	39	-10	12	29	9	16	25	9	16	16039	22	1.30					100	18	75
Month Mean	19	6		21	12		19	13									92	58	

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17%  
 at 5-7" = 10%  
 at 11-13" = 4%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month April Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	37	21	29														100	35	68
2	24	3	14														100	48	74
3	16	2	9														100	44	72
4	24	13	18														74	38	56
5	30	15	22														100	46	73
6	33	19	26	30	20	25	26	23	24	2897	20	.20	0			100	60	80	
7	37	24	30														100	47	74
8	26	23	24														100	67	84
9	30	20	25														100	46	73
10	22	12	17														100	44	72
11	24	12	18														100	40	70
12	34	18	26														52	22	37
13	41	25	33	29	24	26	26	24	25	2814	17	.40	T			36	20	28	
14	46	32	39														51	27	39
15	37	12	24														100	40	70
16	29	13	21														100	40	70
17	19	10	14														100	100	100
18	10	2	6														100	100	100
19	12	2	7														100	100	100
20	23	11	17	30	21	26	28	28	28	2977	18	.80	2			100	46	73	
21	26	6	16														100	49	74
22	12	2	7														100	95	98
23	26	4	15														100	37	68
24	24	12	18														100	41	70
25	35	17	26														100	27	64
26	39	20	30														100	47	74
27	23	7	15														100	100	100
28	20	13	16														100	100	100
29	30	15	22														100	100	100
30	35	21	28	30	21	26	27	23	25	3629	15	1.00	T	73	22	16	100	84	92
31																			
Month	46	2	21	30	20	26	28	23	26	12317	17	2.40					100	20	75
Month Mean	27	14		30	22		27	25									94	56	

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17%  
 at 5-7" = 10%  
 at 11-13" = 4%

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month May Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	35	19	27												100	50	75		
2	32	18	25												70	42	56		
3	40	25	32												89	37	63		
4	41	28	34												100	36	68		
5	45	30	38												69	29	49		
6	48	31	40												72	36	54		
7	48	36	42												53	37	45		
8	49	37	43												100	36	68		
9	40	25	32												100	63	82		
10	46	37	42												84	25	54		
11	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
12	46	17	32	40	28	34	32	27	30	4617	16	.20	0		78	31	54		
13	43	23	33												70	30	50		
14	41	32	36												65	38	52		
15	44	31	38												100	38	69		
16	37	27	32												100	52	76		
17	43	25	34	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	33	66		
18	46	25	36	43	32	38	35	32	34	1663	11	.10	0		100	24	62		
19	35	25	30												100	79	90		
20	40	24	32												100	32	66		
21	44	23	34												100	44	72		
22	40	30	35												100	77	88		
23	41	30	36												100	77	88		
24	40	27	34	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	70	85		
25	43	29	36	42	33	38	36	34	35	2259	14	.70	0		100	36	68		
26	41	26	34												100	31	66		
27	46	30	38												100	26	63		
28	47	32	40												100	36	68		
29	48	33	40												100	27	64		
30	52	32	42	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	26	63		
31	46	32	39	42	35	38	37	34	36	1972	14	.10	0	34	12	11	100	28	64
Month Mean	52	17	35	43	28	37	37	27	33	10511	14	1.10			100	24	66		
Month Mean	43	28		42	32		35	32							92	41			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4%
- ② Rim of gauge 40 inches above ground      at 5-7" = 10%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month June Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	49	36	42												100	30	65		
2	39	30	34												100	79	90		
3	40	29	34												100	44	72		
4	51	36	44												94	20	57		
5	46	26	36												100	32	66		
6	48	32	40												100	29	64		
7	48	34	41	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	100	24	62		
8	46	27	36	44	34	39	38	34	36	2461	13	1.15	0		100	36	68		
9	33	26	30												100	100	100		
10	43	28	36												100	59	80		
11	48	34	41												72	28	50		
12	54	36	45												57	34	46		
13	55	41	48												70	30	50		
14	54	36	45												100	47	74		
15	47	31	39												100	64	82		
16	34	28	31												100	100	100		
17	42	27	34												100	56	78		
18	36	32	34												100	42	71		
19	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
20	50	31	40	45	33	39	40	34	37	2961	10	3.15	T	109	54	44	100	22	61
21	57	42	50												60	11	36		
22	59	43	51												60	16	38		
23	57	44	50												44	19	32		
24	60	43	52												34	22	28		
25	54	37	46												74	30	52		
26	59	42	50												77	21	49		
27	62	46	54	50	36	43	44	ND	ND	1839	11	.20	0		76	21	48		
28	62	49	56												40	28	34		
29	60	43	52	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	48	20	34		
30	62	42	52	53	42	48	46	43	44	805	11	.00	0	34	31	24	50	23	36
31																			
Month Mean	62	26	43	53	33	42	46	34	39	8066	11	4.50			100	11	59		
Month Mean	50	36		48	36		41	37							81	38			
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4%
- ② Rim of gauge 40 inches above ground      at 5-7" = 10%

Data collected for Front Range Ecology Project Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month July Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"   5-7"   11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"			
1	57	40	48														100	21	60
2	57	41	49														100	29	64
3	55	42	48														100	39	70
4	55	41	48	54	44	49	47	44	46	928	10	.10	0				100	52	76
5	55	42	48														100	39	70
6	59	40	50														100	29	64
7	58	38	48														100	28	64
8	58	43	50														100	46	73
9	53	42	48														100	62	81
10	55	40	48														100	40	70
11	54	41	48	52	44	48	46	44	45	1723	10	.51	0				100	39	70
12	56	40	48														100	15	58
13	54	41	48														100	23	62
14	57	42	50														79	19	49
15	57	42	50														55	25	40
16	55	39	47														100	44	72
17	56	42	49														73	25	49
18	59	47	53	54	44	49	56	44	50	2136	13	.19	0	40	30	15	63	27	45
19	62	45	54														100	20	60
20	62	46	54														85	22	54
21	62	48	55														61	30	46
22	61	42	52														100	44	72
23	59	41	50														100	39	70
24	57	44	50														100	43	72
25	63	45	54	56	44	50	49	45	47	1538	9	.90	0				92	28	60
26	59	41	50														100	34	67
27	54	41	48														100	21	60
28	53	40	46														46	20	33
29	58	44	51														29	19	24
30	59	44	52														32	17	24
31	62	45	54	56	45	50	50	45	48	1258	9	.30	0	37	16	8	35	21	28
Month	63	38	50	56	44	49	56	44	47	7583	10	2.00	0				100	15	58
Month Mean	58	42		54	44		50	45									86	31	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month August Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"   5-7"   11-13"			Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean					0-2"	5-7"	11-13"			
1	60	42	51														100	27	64
2	53	35	44														100	58	79
3	50	36	43														100	72	86
4	56	40	48														100	58	79
5	51	37	44														100	66	83
6	51	41	46														100	61	80
7	54	42	48														100	50	75
8	56	40	48	55	44	50	50	45	48	1922	10	2.70	0	96	44	17	100	52	76
9	48	38	43														100	44	72
10	54	40	47														100	44	72
11	49	40	44														100	64	82
12	44	37	40														100	74	87
13	46	37	42														100	51	76
14	54	38	46														94	40	67
15	55	45	50	50	40	45	46	42	44	1007	6	2.10	0	83	43	31	58	36	47
16	57	43	50														68	30	49
17	47	39	43														100	58	79
18	52	37	44														100	32	66
19	56	40	48														72	32	52
20	49	42	46														100	47	74
21	53	41	47														100	65	82
22	51	39	45	51	42	46	48	44	46	1802	11	.50	0	102	24	16	100	60	80
23	51	37	44														100	46	73
24	53	38	46														100	50	75
25	54	39	46														100	38	69
26	54	38	46														100	45	72
27	45	35	40														100	54	77
28	47	36	42														100	49	74
29	51	37	44														100	36	68
30	49	37	43														100	38	69
31	45	36	40	50	40	45	46	43	44	2083	10	2.30	0	95	35	20	100	72	86
Month	60	35	45	55	40	46	50	42	46	6814	9	7.60	0				100	27	73
Month Mean	52	39		52	42		48	44									96	50	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month September Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	39	31	35																
2	49	34	42																
3	53	38	46																
4	55	41	48																
5	55	44	50																
6	51	36	44	50	38	44	45	40	42	1746	12	.70	0	91	40	23	100	52	76
7	45	38	42																
8	52	37	44																
9	49	37	43																
10	48	38	43																
11	50	37	44																
12	52	37	44																
13	54	35	44	49	40	44	46	42	44	1873	11	1.70	0	68	34	26	100	38	69
14	46	33	40																
15	43	33	38																
16	53	36	44																
17	54	40	47																
18	58	42	50																
19	54	41	48																
20	44	35	40																
21	42	32	37	47	37	43	44	41	42	2000	10	.80	0	116	47	24	100	56	78
22	47	33	40																
23	52	35	44																
24	47	30	38																
25	51	35	43																
26	55	40	48																
27	55	40	48																
28	48	35	42																
29	51	36	44																
30	51	38	44	46	38	42	43	40	42	2527	12	.60	0	70	29	22	43	28	36
31																			
Month Mean	58	30	43	50	37	43	46	40	43	8146	11	3.80					100	6	62
Month Mean	50	37	43	48	38	43	44	41	43								86	39	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month October Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	50	38	44																
2	49	36	42																
3	48	38	43																
4	51	38	44																
5	47	34	40	45	39	42	43	40	42	1325	11	.00	0	83	33	23	66	36	51
6	47	33	40																
7	51	34	42																
8	50	36	43																
9	45	35	40																
10	49	31	40																
11	48	30	39																
12	47	30	38	45	38	42	42	40	41	2153	13	.00	0	42	29	19	100	44	72
13	41	23	32																
14	40	23	32																
15	44	30	37																
16	44	29	36																
17	43	31	37																
18	45	32	38																
19	41	32	36	43	35	39	41	37	39	1927	11	.00	0	48	61	42	95	57	76
20	32	26	29																
21	30	23	26																
22	33	25	29																
23	30	23	26																
24	27	22	24																
25	35	25	30																
26	39	27	33	40	32	36	38	33	36	3536	22	.00	0	58	82	44	100	58	79
27	35	26	30																
28	39	26	32																
29	34	27	30																
30	36	19	28																
31	19	9	14	34	32	33	34	32	33	2470	20	.40	3	49	50	20	100	50	75
Month Mean	51	9	35	45	32	38	43	32	38	1411	15	.40					100	15	64
Month Mean	41	29	35	41	35	38	40	36	38								86	42	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month November Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	24	9	16												66	23	44		
2	35	20	28												94	20	57		
3	27	18	22												100	71	86		
4	21	15	18												100	100	100		
5	22	14	18												100	58	79		
6	29	19	24												80	56	68		
7	28	17	22												100	60	80		
8	22	19	20												100	77	88		
9	24	20	22	32	29	30	33	32	32	5030	23	.40	3	57	34	19			
10	29	20	24												100	100	100		
11	26	20	23												100	52	76		
12	29	19	24												100	32	66		
13	32	23	28												100	15	58		
14	29	22	26												100	20	60		
15	32	22	27												100	68	84		
16	24	3	14	30	27	28	32	31	31	3601	22	.00	T	55	ND	ND			
17	18	-1	8												100	100	100		
18	21	15	18												100	13	56		
19	24	14	19												27	11	19		
20	28	17	22												48	15	32		
21	27	12	20												24	11	18		
22	18	1	10												100	21	60		
23	24	14	19	29	20	24	31	25	28	4221	25	.20	ND		100	37	68		
24	22	8	15												77	34	56		
25	22	4	13												100	36	68		
26	38	20	29												100	20	60		
27	34	14	24												100	21	60		
28	17	10	14												100	24	62		
29	21	11	16												100	37	68		
30	28	16	22	26	20	23	27	23	25	3245	19	.00	ND	82	43	23			
31															34	13	24		
Month Mean	38	-1	20	32	20	27	33	23	29	16097	22	.60			100	11	64		
Month Mean	26	14		29	24		31	28							87	40			

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17% at 11-13" = 4%  
 at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month December Year 1963

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	20	10	15												61	20	40		
2	28	10	19												59	33	46		
3	28	18	23												59	30	44		
4	34	18	26												64	23	44		
5	23	17	20												60	45	52		
6	26	-2	12												100	39	70		
7	-2	-9	-6	24	18	21	26	22	24	3368	20	.10	2		100	100	100		
8	16	-10	3												100	23	62		
9	24	8	16												100	50	75		
10	8	-13	-2																
11	-2	-9	-6																
12	-5	-11	-8																
13	-5	-12	-8																
14	6	-5	0	20	9	14	23	13	18	5106	30	.50	2						
15	8	4	6																
16	14	8	11																
17	14	10	12																
18	20	12	16																
19	17	10	14																
20	12	8	10																
21	9	1	5	18	2	10	19	13	16	4560	27	.10	6		ND	ND	ND		
22	10	-2	4												100	28	64		
23	22	7	14												100	80	90		
24	33	17	25												84	14	49		
25	31	9	20												100	16	58		
26	13	4	8												100	51	76		
27	12	3	8												100	94	97		
28	9	1	5																
29	8	-2	3																
30	25	-1	12																
31	24	14	18	20	14	17	21	16	18	6924	29	.40	ND	44	42	24			
Month Mean	34	-13	10	24	2	16	26	13	19	19958	27	1.10			100	14	64		
Month Mean	16	4		20	11		22	16							86	43			

Data collected for Front Range Ecology Project  
Supported by U.S. Atomic Energy Commission and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17% at 11-13" = 4%  
 at 5-7" = 10%



Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month January Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	24	15	20																	
2	21	6	14																	
3	6	-2	2																	
4	9	-1	4																	
5	0	-10	-5																	
6	4	-6	-1																	
7	3	-9	-3																	
8	-7	-15	-11																	
9	6	-15	-4																	
10	6	-10	-2																	
11	-9	-14	-12																	
12	3	-15	-6																	
13	10	-6	2																	
14	25	9	17																	
15	10	7	8																	
16	15	8	12																	
17	10	5	8																	
18	11	-1	5	19	4	12	20	8	14	9675	22	Incomplete data	3					ND	ND	ND
19	8	-7	0																	
20	20	8	14																	
21	19	10	14																	
22	12	2	7																	
23	2	-11	-4																	
24	-5	-15	-10																	
25	10	-4	3																	
26	11	2	6																	
27	19	3	12																	
28	17	7	12																	
29	26	7	16																	
30	20	5	12																	
31	9	2	6	17	6	12	17	10	14	8418	27		T	63	42	30	100	100	100	
Month	26	-15	4	19	4	12	20	8	14	18093	24									
Month Mean	10	-2		18	5		18	9												
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage: at 0-2"=17% at 11-13"=4%  
at 5-7"=10%

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month February Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity			
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	16	0	8																	
2	1	-10	-4																	
3	8	-12	-2																	
4	22	8	15																	
5	16	-2	7																	
6	-2	-12	-7																	
7	0	-12	-6																	
8	5	-3	1																	
9	11	2	6																	
10	18	11	14																	
11	21	10	16																	
12	10	-2	4																	
13	12	-2	5																	
14	0	-11	-6																	
15	12	-12	0	17	7	12	16	10	13	8007	22	Incomplete data	2							
16	4	-7	-2																	
17	0	-7	-4																	
18	0	-7	-4																	
19	8	-6	1																	
20	-2	-11	-7																	
21	-3	-12	-8																	
22	4	-10	-3	ND	ND	ND	ND	ND	ND	4027	24		ND							
23	3	-13	-5																	
24	9	-3	3																	
25	1	-11	-5																	
26	0	-13	-7																	
27	-1	-15	-8																	
28	13	-2	6																	
29	10	3	6	12	4	8	13	8	10	4663	28									
30																				
31																				
Month	22	-15	1	17	4	10	16	8	12	16697	24									
Month Mean	7	-6		14	6		14	9												
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
② Rim of gauge 40 inches above ground  
③ Permanent wilting percentage: at 0-2"=17% at 11-13"=4%  
at 5-7"=10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month March Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	16	2	9																
2	16	1	8																
3	11	-9	1																
4	2	-9	-4																
5	7	-5	1																
6	-4	-9	-6																
7	9	-8	0																
8	5	-7	-1																
9	7	-7	0																
10	5	-8	-2																
11	9	-8	0																
12	16	8	12																
13	11	-7	2																
14	3	-11	-4																
15	8	2	5	12	6	9	14	8	11	8187	23	Incom- plete	2						
16	15	0	8																
17	26	12	19																
18	24	5	14																
19	8	-5	2																
20	10	-6	2																
21	24	5	14																
22	30	3	16																
23	10	-1	4																
24	12	3	8																
25	3	-4	0																
26	5	-1	2																
27	3	-1	1																
28	12	-1	6																
29	21	10	16																
30	24	15	20																
31	25	12	18	21	8	14	20	10	15	8731	23		0	75	46	23			
Month Mean	30	-11	6	21	6	12	20	8	13	16918	23							ND	ND
Month Mean	12	-1		16	7		17	9										ND	ND

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17% at 11-13" = 4%  
 at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month April Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	30	13	22																
2	15	12	14															ND	ND
3	13	5	9																
4	20	6	13																
5	15	7	11																
6	16	3	10																
7	22	2	12																
8	15	5	10																
9	20	8	14																
10	24	13	18																
11	10	0	5																
12	22	10	16																
13	29	18	24																
14	38	26	32																
15	36	21	28																
16	32	21	26																
17	31	22	26	28	16	22	26	17	22	9757	23	Incom- plete data	T				ND	ND	ND
18	25	13	19														100	80	84
19	31	20	26														100	72	86
20	20	12	16														100	100	100
21	22	12	17														100	82	91
22	22	11	16														100	50	75
23	37	20	28														54	24	39
24	38	20	29														100	24	62
25	23	4	14														100	58	79
26	15	4	10																
27	16	4	10																
28	29	14	22																
29	1	1	1																
30	32	20	26	29	20	24	28	21	24	6104	21		0	49	37	19			
31	38	0	18	29	16	23	28	17	23	15861	22						100	ND	ND
Month Mean	24	12		28	18		27	19									ND	ND	

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17% at 11-13" = 4%  
 at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month May Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	34	22	28														100	86	93
2	25	8	16														100	69	84
3	14	3	8														100	100	100
4	32	7	20														100	33	66
5	26	10	18														100	49	74
6	25	9	17														100	52	76
7	34	10	22														100	26	63
8	19	7	13														100	100	100
9	27	14	20														100	74	87
10	34	18	26														100	29	64
11	24	16	20																
12	34	14	24																
13	45	28	36																
14	49	33	41																
15	53	35	44																
16	56	36	46	33	24	28	32	25	28	6495	17	.70	0	21	30	26	100	12	56
17	52	38	45														30	17	24
18	43	30	36														100	25	62
19	45	29	37														100	35	68
20	53	37	45														56	18	37
21	53	38	46														53	24	38
22	48	37	42														54	33	44
23	45	30	38														81	31	56
24	52	32	42														60	29	44
25	53	36	44														100	28	64
26	35	29	32														100	100	100
27	39	30	34																
28	42	30	36																
29	31	22	26																
30	29	17	23																
31	35	17	26	46	32	39	38	30	34	3582	10	.80	3	34	28	20	100	25	62
Month	56	3	31	46	24	34	38	25	31	10077	14	1.50					100	12	67
Month Mean	38	23		40	28		35	28									88	45	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.			

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month June Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
1	29	22	26														100	100	100
2	32	24	28														100	100	100
3	31	24	28														100	100	100
4	37	24	30														100	100	100
5	39	32	36	32	31	32	33	32	32	2240	19	1.30	2	54	36	21	100	51	76
6	43	31	37														100	52	76
7	51	30	40														100	25	62
8	32	19	26														100	47	74
9	38	23	30														100	34	67
10	47	29	38														100	28	64
11	41	28	34														100	35	68
12	47	28	38	42	32	37	37	32	34	2395	14	.00	0	44	34	25	100	23	62
13	41	28	34														100	49	74
14	38	26	32														100	56	78
15	51	33	42														100	30	65
16	52	41	46														38	25	32
17	52	22	37														100	24	62
18	33	20	26														100	53	76
19	44	32	38	43	35	39	39	35	37	2198	13	.20	0	66	33	19	100	38	69
20	40	26	33														100	50	75
21	43	23	33														100	40	70
22	27	18	22														100	100	100
23	46	23	34														100	19	60
24	51	35	43														64	17	40
25	56	38	47	43	33	38	38	34	36	1934	13	.40	0	74	52	22	57	22	40
26	56	42	49														77	25	51
27	54	41	48														98	42	70
28	51	35	43														100	64	82
29	49	37	43														100	55	78
30	50	36	43	48	39	44	43	38	40	1166	10	.30	0	136	62	24	100	49	74
31																			
Month	56	18	36	48	31	38	43	32	36	9933	14	2.20					100	17	72
Month Mean	43	29		42	34		38	34									94	48	
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)		8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.			

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month July Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	57	42	50																
2	56	44	50																
3	60	45	52																
4	59	47	53																
5	54	44	49																
6	58	44	51																
7	61	42	52																
8	59	36	48																
9	56	41	48	54	42	48	48	42	45	1686	10	.10	0	51	30	18	100	18	59
10	54	40	47																
11	48	35	42																
12	48	34	41																
13	54	40	47																
14	55	39	47																
15	56	40	48																
16	54	43	48	54	43	48	48	44	46	1770	11	.40	0	30	17	14	100	49	74
17	55	43	49																
18	56	41	48																
19	59	45	52																
20	57	45	51																
21	58	45	52																
22	56	45	50																
23	62	40	51	54	44	49	49	45	47	1365	8	.10	0	23	17	19	100	60	80
24	48	40	44																
25	54	39	46																
26	58	42	50																
27	58	45	52																
28	57	39	48																
29	58	41	50																
30	54	40	47																
31	54	42	48	56	44	50	50	46	48	1689	9	.90	0	44	23	11	100	76	88
Month	62	34	49	56	39	48	50	36	45	6921	9	1.50					100	18	66
Month Mean	56	42		54	42		48	43									90	42	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: of 0-2" = 17% at 11-13" = 4%  
② Rim of gauge 40 inches above ground                                      at 5-7" = 10%

Data collected for Front Range Ecology Project  
Supported by U. S. Army and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month August Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	51	39	45																
2	48	39	44																
3	46	37	42																
4	52	39	46																
5	50	40	45																
6	54	39	46	53	40	48	48	45	46	1807	12	.80	0						
7	49	39	44																
8	56	42	49																
9	55	43	49																
10	56	36	46																
11	53	32	42																
12	52	39	46																
13	51	36	44	54	42	48	48	44	46	1895	11	.50	0						
14	52	39	46																
15	53	39	46																
16	49	30	40																
17	49	30	40																
18	56	37	46																
19	45	28	36																
20	33	23	28	54	41	48	48	43	46	2214	13	.40	T						
21	30	21	26																
22	42	26	34																
23	47	34	40																
24	52	38	45																
25	47	37	42																
26	50	32	41																
27	35	23	29	47	35	42	44	40	42	3654	23	.24	2						
28	47	28	38																
29	35	19	27																
30	46	31	38																
31	51	37	44	42	36	39	42	38	40	2084	21	.35	0	ND	ND	ND	57	21	39
Month	56	19	41	54	36	45	48	38	44	11854	16	2.29					100	16	66
Month Mean	48	34		50	40		46	42									93	39	
Key	Thermograph (Bourdon Tube) ①	Av. of Max & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ④	Av. of Max. & Min.				

- ① Instruments located in standard Weather Bureau Shelter      ③ Permanent wilting percentage: of 0-2" = 17% at 11-13" = 4%  
② Rim of gauge 40 inches above ground                                      at 5-7" = 10%

Data collected for Front Range Ecology Project  
Supported by U. S. Army and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month September Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	50	38	44																
2	51	34	42																
3	51	33	42																
4	52	30	41	48	38	43	42	39	40	1204	12	.05		0					
5	51	39	45																
6	54	36	45																
7	47	30	38																
8	51	36	44																
9	49	37	43																
10	47	34	40																
11	48	35	42	48	40	44	44	42	43	2461	15	.00		0					
12	50	35	42																
13	48	34	41																
14	45	28	36																
15	33	26	30																
16	43	25	34																
17	47	31	39																
18	49	28	38																
19	31	23	27	47	37	42	44	39	42	2232	12	.70		T					
20	34	21	28																
21	33	25	29																
22	38	25	32																
23	40	27	34																
24	45	29	37																
25	44	33	38																
26	34	22	28	40	34	37	40	36	38	3163	19	.38		T					
27	36	22	29																
28	41	27	34																
29	42	28	35																
30	43	30	36	36	34	35	38	ND	ND	1980	20	.30		T	ND	ND	ND		
31																			
Month Mean	54	21	37	48	34	40	44	36	40	11040	15	1.43							
Month Mean	44	30		44	37		42	39											
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

Station No. D-1 Altitude 12,300 ft. Exposure Ridgetop Month October Year 1964

UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp. Air °F			Temp. Soil °F						Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt.			Relative Humidity		
	Max.	Min.	Mean	5-7 Inches			11-13 Inches			Total Miles	Av. Vel. mph			0-2"	5-7"	11-13"	Max.	Min.	Mean
				Max.	Min.	Mean	Max.	Min.	Mean										
1	47	26	36																
2	44	26	35																
3	46	34	40	37	34	36	37	35	36	2126	29	.00		0					
4	43	27	35																
5	40	28	34																
6	42	28	35																
7	42	31	36																
8	42	32	37																
9	44	31	38																
10	39	22	30	38	34	36	38	35	36	2757	17	.00		T					
11	27	19	23																
12	41	21	31																
13	46	28	37																
14	44	32	38																
15	42	31	36																
16	43	31	37																
17	35	23	29	37	32	34	37	34	36	2671	16	.10		0					
18	27	15	21																
19	30	15	22																
20	35	23	29																
21	36	26	31																
22	29	14	22																
23	24	14	19																
24	22	13	18	34	32	33	35	32	34	2884	17	.10		T					
25	31	18	24																
26	32	22	27																
27	34	22	28																
28	35	25	30																
29	47	29	38																
30	37	18	28																
31	28	15	22	32	30	31	32	32	32	3169	19	.10		3	ND	ND	ND		
Month Mean	47	13	30	38	30	34	38	32	35	13607	18	.30							
Month Mean	37	24		36	32		36	34											
Key	Thermograph (Bourdon Tube) ①	Av. of Max. & Min.		Max. & Min. Thermometers (Weather Bureau Type)						Totalizing Anemometer (3-cup)	8" Rain Gauge ②	Snow Stake	Oven-Drying Method ③	Hydrograph (Hair) ①	Av. of Max. & Min.				

① Instruments located in standard Weather Bureau Shelter

② Rim of gauge 40 inches above ground

③ Permanent wilting percentage: at 0-2" = 17% at 11-13" = 4% at 5-7" = 10%

Data collected for Front Range Ecology Project  
Supported by U.S. Army and University of Colorado

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month November Year 1964  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity				
	Max.	Min.	Mean	5-7 inches			11-13 inches				Total Miles	Avg. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean
1	32	23	28													49	19	34
2	30	13	22													100	29	64
3	22	10	16													100	15	58
4	35	21	28													20	6	13
5	44	24	34													21	0	10
6	30	24	27													47	21	34
7	31	22	26	32	28	30	33	31	32	2507	16	.20	T			46	14	30
8	33	23	28													44	13	28
9	34	22	28													58	21	40
10	27	16	22													88	32	60
11	18	-1	8													100	75	88
12	11	-1	5													100	100	100
13	17	8	12													100	63	82
14	11	0	6	30	22	26	32	29	30	3871	23	.20	6			100	100	100
15	21	4	12													100	53	76
16	26	12	19													100	55	78
17	23	14	18													100	44	72
18	15	0	8													100	47	74
19	5	-5	0													100	94	97
20	8	0	4													100	ND	ND
21	19	7	13	28	20	24	30	24	27	3365	20	.50	T			ND	ND	ND
22	23	13	18													74	20	47
23	14	4	9													100	60	80
24	20	5	12													100	30	65
25	18	13	16													100	ND	ND
26	20	11	16													100	54	77
27	11	-3	4													100		
28	10	-1	4													ND		
29	15	10	12													ND		
30	20	14	17	ND	18	ND	25	21	23	5921	28	.70	T	ND	ND	ND	ND	ND
31																		
Month Mean	44	-5	15	32	18	26	33	21	28	15764	22	1.60				100	0	61
Month Mean	21	10		30	22		30	26								83	42	

Data collected for Front Range Ecology Project  
 Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17% at 11-13" = 4%  
 at 5-7" = 10%

Station No. D-1 Altitude 12,300 ft Exposure Ridgetop Month December Year 1964  
 UNIVERSITY OF COLORADO — INSTITUTE OF ARCTIC & ALPINE RESEARCH  
 SUMMARY OF MOUNTAIN ENVIRONMENTS

Day	Temp Air °F			Temp Soil °F			Wind		Precip. Inches Water	Snow, in Total Depth	Soil Moisture % Dry Wt			Relative Humidity					
	Max.	Min.	Mean	5-7 inches			11-13 inches				Total Miles	Avg. Vel. mph	0-2"	5-7"	11-13"	Max.	Min.	Mean	
1	20	13	16													100	79	90	
2	14	4	9													100			
3	9	3	6													100			
4	6	0	3													100			
5	3	-2	0	21	16	18	24	20	22	2621	22	.00	2			100			
6	13	-6	4													100	12	56	
7	21	8	14													39	9	24	
8	20	11	16													32	17	24	
9	12	2	7													100	30	65	
10	8	-2	3													100	50	75	
11	14	5	10													100	100	100	
12	5	-16	-6													100	100	100	
13	-1	-15	-8													100	55	78	
14	10	-4	3	ND	ND	ND	ND	ND	ND	5174	24	.80	ND			100	11	56	
15	11	6	8													100	46	73	
16	14	6	10													100	62	81	
17	9	-17	-4													100	7	54	
18	20	9	14													100	0	50	
19	12	5	8	18	-3	8	19	12	16	2881	25	.00	T			100	100	100	
20	14	7	10													100	39	70	
21	24	12	18													100	21	60	
22	27	19	23													100			
23	27	15	21													100			
24	21	11	16													100			
25	13	3	8													ND			
26	11	7	9	21	12	16	21	14	18	4552	27	2.40	4			ND			
27	18	11	14													100			
28	15	2	8													100			
29	3	-8	-2													100			
30	4	-8	-2													100			
31	12	4	8	20	15	18	20	16	18	1971	17	1.10	4	ND	ND	ND	100	ND	ND
Month Mean	27	-17	8	21	-3	15	24	12	18	17199	23	4.30				100	0	68	
Month Mean	13	3		20	10		21	15								96	43		

Data collected for Front Range Ecology Project  
 Supported by U.S. Army and University of Colorado

- ① Instruments located in standard Weather Bureau Shelter  
 ② Rim of gauge 40 inches above ground  
 ③ Permanent wilting percentage:  
 at 0-2" = 17% at 11-13" = 4%  
 at 5-7" = 10%



### III. ANNUAL SUMMARIES



**ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT**

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. A-1 Altitude 7,200 Ft. Site Ridgetop Summary for 1959

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
						Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	59	39	-15	17	28	3	33	32	30	31	31	33
February	54	40	2	17	29	2	33	32	29	30	31	32
March	56	44	8	22	33	4	36	33	30	31	32	32
April	-78	53	6	29	41	12	52	47	33	36	41	39
May	78	61	30	39	50	26 x23	62	61	39	41	51	48
June	91	79	39	53	66	30	73	72	50	57	64	60
July	90	82	41	54	68	31	76	74	57	59	67	63
August	93	82	43	55	69	31	76	74	57	58	66	64
September	93	69	17	44	56	27 x28	77	69	42	52	60	60
October	74	55	14	31	43	12	52	51	38	40	45	45
November	64	47	-8	20	34	5	41	40	33	35	38	39
December	64	45	8	23	34	3	36	33	28	31	32	35
Year	93	58	-15	34	46	129 #	77	52	28	42	47	46
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Atomic Energy Commission, U. S. Army Quartermaster Research and Development Command, and University of Colorado. X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 4% & 4% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
January	7	1.45	N-D	8	6	83	22	44	64			
February	6	1.60	N-D	12	11	89	19	40	64			
March	8	2.95	N-D	15	14	86	18	39	62			
April	7	3.40	N-D	11	15	86	17	43	65			
May	5	3.70	N-D	12	10	92	18	53	73			
June	7	2.53	N-D	8	7	80	26	34	57			
July	6	1.18	0	7	7	79	18	34	56			
August	6	1.33	0	8	4	73	10	28	50			
September	6	2.74	N-D	N-D	N-D	73	16	37	55			
October	5	2.20	N-D	12	7	86	11	40	63			
November	9	1.15	N-D	13	12	81	4	27	54			
December	5	1.10	N-D	14	N-D	76	8	27	52			
Year	6	24.13				82	4	37	60			

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**ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT**

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. A-1 Altitude 7,200 Ft. Site Ridgetop Summary for 1960

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
						Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	61	38	-3	17	27	2	33	32	25	28	30	30
February	52	31	-8	11	21	1	32	32	30	30	31	32
March	69	46	-8	22	34	8	48	37	31	33	35	32
April	76	56	14	32	44	16	61	56	39	39	48	44
May	79	63	27	39	51	24 x21	68	61	37	40	50	48
June	89	75	38	49	70	30	78	72	52	56	64	61
July	93	81	43	53	67	31	80	78	56	59	69	64
August	93	81	40	52	67	31	78	76	56	59	67	63
September	90	72	35	47	60	30	78	70	50	54	62	60
October	78	59	18	37	48	21 x9	64	56	38	44	50	50
November	66	49	12	27	38	7	45	42	33	36	39	40
December	61	42	-5	20	31	3	35	34	32	32	33	35
Year	93	58	-8	34	46	142 #	80	54	25	43	48	47
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Atomic Energy Commission, U. S. Army Quartermaster Research and Development Command, and University of Colorado. X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 4% & 4% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
January	6	.85	N-D	N-D	N-D	80	6	40	60			
February	5	2.30	N-D	18	N-D	93	17	43	68			
March	7	1.60	N-D	15	N-D	86	17	36	61			
April	8	2.30	N-D	12	12	77	9	30	53			
May	5	4.28	N-D	14	13	81	9	32	56			
June	6	1.29	N-D	5	5	85	4	31	58			
July	6	1.81	0	5	5	80	10	28	54			
August	7	.80	0	4	3	73	4	23	48			
September	6	.86	N-D	3	3	74	10	24	49			
October	5	2.43	N-D	5	8	68	8	33	50			
November	7	.77	N-D	11	N-D	68	7	25	47			
December	7	1.90	N-D	12	10	83	6	31	57			
Year	6	21.19				79	4	31	55			

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**ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT**

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. A-1      Altitude 7,200      Ft.      Site Ridgetop      Summary for 1961

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	63	44	-5	21	32	4	32	32	26	27	30	32
February	62	43	6	21	32	3	32	32	29	31	31	32
March	58	43	8	23	33	3	41	37	32	32	35	34
April	72	50	12	26	38	7	54	48	34	36	42	39
May	79	60	29	39	49	25 x 15	65	60	39	42	51	N-D
June	87	73	36	49	61	30	75	71	49	52	62	58
July	91	79	44	53	66	31	76	76	55	58	67	63
August	91	80	48	53	66	31	80	76	58	61	68	65
September	80	62	26	38	50	21 x 3	69	64	42	45	54	54
October	75	59	14	35	47	16	57	56	40	42	49	48
November	61	44	10	23	33	6	42	39	34	36	37	39
December	54	36	-12	16	26	2	35	33	28	31	33	33
Year	91	56	-12	33	44	110 #	80	52	26	41	47	45

Month	WIND Average Vel mph	PRECIP Inches Water	SNOW Max Depth	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U. S. Atomic Energy Commission and the University of Colorado X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 4% and 4% **Maximum 100% Every Month.
				5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	
January	7	1.05	N-D	6	5	54	8	21	38	
February	7	1.35	N-D	11	11	79	14	37	58	
March	6	3.65	N-D	13	13	84	10	42	63	
April	6	1.80	N-D	13	11	88	8	28	59	
May	5	4.55	N-D	16	12	91	2	43	67	
June	6	2.89	N-D	9	9	79	8	33	56	
July	6	2.25	0	5	7	82	8	27	54	
August	5	2.07	0	7	8	86	9	28	57	
September	5	5.16	N-D	13	11	83	6	37	60	
October	6	1.56	N-D	5	3	71	8	28	49	
November	6	1.80	N-D	13	13	80	10	33	56	
December	8	.80	N-D	13	12	78	12	32	55	
Year	6	28.93				80	6	32	56	

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**ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT**

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. A-1      Altitude 7,200      Ft.      Site Ridgetop      Summary for 1962

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	58	37	-18	12	24	4	32	31	26	28	30	31
February	65	41	-17	19	30	8	36	33	31	31	32	32
March	64	43	1	20	32	2	46	37	32	32	35	34
April	81	57	12	34	46	16	58	53	34	39	46	44
May	81	67	31	43	55	30 x 1	65	62	39	47	54	51
June	87	72	35	47	60	30	76	70	46	52	61	58
July	94	82	43	53	67	31	79	77	59	61	69	65
August	98	84	36	54	69	31	80	79	55	60	69	65
September	87	73	27	47	60	28 x 7	73	70	51	52	61	59
October	81	66	26	40	53	28	64	60	44	46	53	53
November	68	52	13	31	41	14	53	46	35	37	41	43
December	62	46	-1	23	35	7	41	39	30	32	35	36
Year	98	60	-18	35	48	158 #	80	55	26	43	49	48

Month	WIND Average Vel mph	PRECIP Inches Water	SNOW Max Depth	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U. S. Atomic Energy Commission and the University of Colorado X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 4% and 4% **Maximum 100% Every Month.
				5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	
January	6	1.85	N-D	38	N-D	73	7	27	48	
February	6	1.40	N-D	16	11	81	12	37	59	
March	6	.90	N-D	14	12	84	8	28	56	
April	5	2.45	N-D	12	12	80	9	31	55	
May	6	1.72	N-D	11	10	68	13	24	46	
June	5	2.26	N-D	8	8	85	9	35	60	
July	6	1.93	0	2	1	85	15	28	57	
August	7	.60	0	3	3	59	5	20	40	
September	6	.53	N-D	2	3	68	5	25	47	
October	6	.40	N-D	3	3	70	8	24	47	
November	6	.80	N-D	10	10	75	12	36	54	
December	7	.50	N-D	5	7	76	5	31	53	
Year	6	15.34				75	5	29	52	

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## ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. A-1 Altitude 7,200 Ft. Site Ridgetop Summary for 1963

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	55	33	-29	8	21	2	32	29	20	24	26	29
February	65	45	-5	23	34	5	41	37	29	31	34	33
March	69	47	3	24	36	7	50	41	33	34	37	36
April	72	57	20	31	44	11	58	55	39	41	48	46
May	81	69	32	42	55	30 x 19	70	67	47	51	59	55
June	93	76	39	50	63	30	78	74	52	56	65	61
July	94	86	49	58	72	31	80	79	59	63	71	68
August	92	76	48	53	64	31	80	74	56	58	66	64
September	85	74	41	50	62	30	76	72	54	56	64	62
October	80	67	22	44	56	28 x 27	68	63	44	50	57	56
November	65	53	18	30	42	11	49	45	33	37	41	42
December	56	40	-5	20	30	5	36	33	26	28	31	34
Year	94	60	-29	36	48	161 #	80	56	20	44	50	49
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project  Supported by the U. S. Atomic Energy Commission and the University of Colorado  X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze- free Period. *Permanent Wilting Per- centage : 4% and 4% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
	January	8	1.40	N-D	5	4	76	6	33		54	
February	8	1.10	N-D	7	5	72	2	28	50			
March	6	2.40	N-D	12	12	73	11	26	49			
April	7	.40	N-D	8	9	76	6	21	49			
May	6	.90	N-D	3	4	81	1	21	51			
June	6	4.69	N-D	6	7	62	4	23	43			
July	6	1.92	0	4	4	73	10	26	50			
August	5	3.66	0	7	3	93	18	41	67			
September	6	3.69	N-D	4	4	83	16	36	60			
October	6	.70	N-D	6	11	60	14	29	45			
November	6	.85	N-D	9	6	75	16	35	55			
December	7	.90	N-D	4	4	85	16	50	68			
Year	6	22.68				76	1	31	53			

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## ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. A-1 Altitude 7,200 Ft. Site Ridgetop Summary for 1964

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	55	39	-4	18	28	1	32	31	22	25	28	30
February	51	36	0	14	25	0	32	31	24	26	28	30
March	60	40	0	18	29	2	40	33	27	29	30	32
April	70	51	15	28	40	11	58	50	32	36	43	40
May	85	66	24	40	53	24 x 31	70	66	42	47	57	52
June	86	70	35	46	58	30	74	69	44	50	59	56
July	94	86	49	56	71	31	80	77	56	59	68	65
August	92	80	40	51	66	31	76	73	57	59	66	65
September	89	72	29	45	59	28 x 26	75	70	45	53	62	59
October	79	64	21	36	50	21	63	59	39	44	52	52
November	66	46	11	25	36	8	51	44	33	36	40	42
December	56	40	-12	20	30	14	35	32	19	27	30	32
Year	94	57	-12	33	45	117 #	80	53	19	41	47	46
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project  Supported by U. S. Army Research Office and the University of Colorado  X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze- free Period. *Permanent Wilting Per- centage : 4% and 4% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
	January	10	1.00	N-D	4	4	83	16	40		62	
February	8	1.50	N-D	25	11	93	20	51	72			
March	6	1.75	N-D	6	6	91	14	49	70			
April	7	1.75	N-D	10	11	85	11	40	63			
May	6	2.21	N-D	10	13	77	10	39	58			
June	6	1.70	N-D	N-D	N-D	86	13	40	63			
July	6	2.05	0	N-D	N-D	80	13	30	55			
August	7	.88	0	N-D	N-D	86	12	29	57			
September	5	.83	N-D	N-D	N-D	82	10	36	59			
October	6	.57	N-D	N-D	N-D	70	5	20	45			
November	7	1.30	N-D	N-D	N-D	72	3	34	53			
December	10	1.10	N-D	N-D	N-D	84	8	35	59			
Year	7	16.64				82	3	37	59			

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**ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT**

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No.   B-1   Altitude   8,500   Ft. Site   Ridgetop   Summary for   1959  

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
January	60	35	-20	14	24	1	33	30	27	27	28	30
February	50	36	0	14	25	0	31	30	26	28	28	29
March	51	39	1	17	28	0	33	31	27	29	30	30
April	72	47	0	23	35	9	47	36	31	32	34	34
May	72	56	25	35	45	20 x24	57	57	36	38	47	45
June	83	73	34	48	61	30	71	69	45	51	60	56
July	85	76	35	49	63	31	73	71	51	55	63	61
August	87	75	39	50	62	31	72	69	53	54	62	61
September	86	63	16	40	52	23 x23	73	63	39	47	55	53
October	65	53	16	28	41	8	45	43	35	36	40	40
November	60	42	-10	19	30	3	37	34	30	31	33	33
December	60	42	5	19	30	0	32	30	23	25	28	28
Year	87	53	-20	30	41	123 #	73	47	23	38	42	42
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Atomic Energy Commission, U. S. Army Quartermaster Re- search and Development Command, and University of Colorado. X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze- free Period. *Permanent Wilting Per- centage : 4% & 4% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
January	9	1.40	N-D	12	11	84	18	38	61			
February	8	1.30	N-D	N-D	N-D	88	17	38	63			
March	9	3.10	N-D	10	6	87	12	37	62			
April	11	2.90	N-D	13	11	85	15	37	61			
May	5	3.40	N-D	14	13	96	14	47	68			
June	6	2.51	N-D	N-D	N-D	82	16	32	57			
July	5	1.04	0	4	3	77	14	30	53			
August	5	2.04	0	5	8	73	10	29	51			
September	6	2.25	N-D	N-D	N-D	73	15	34	54			
October	6	2.48	N-D	15	14	86	20	45	66			
November	11	1.25	N-D	19	13	76	13	36	56			
December	8	1.10	N-D	15	N-D	82	21	36	59			
Year	7	22.77				82	10	37	59			

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**ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT**

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No.   B-1   Altitude   8,500   Ft. Site   Ridgetop   Summary for   1960  

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
January	56	33	-6	14	23	0	33	28	21	24	26	25
February	46	28	-14	8	18	0	31	29	27	27	28	27
March	61	42	-9	20	31	2	34	32	28	29	31	29
April	70	51	11	28	39	10	52	45	31	33	39	37
May	75	59	22	35	47	21 x21	61	54	34	35	44	42
June	83	71	35	45	58	30	75	70	46	49	59	59
July	87	76	40	50	63	31	76	73	52	55	64	61
August	89	77	36	48	62	31	77	72	52	54	63	60
September	84	68	31	43	56	28 x21	74	64	44	48	56	55
October	73	56	14	33	44	16	58	49	35	39	44	44
November	59	45	6	23	34	3	38	35	26	30	33	34
December	57	38	1	17	28	1	31	31	23	26	28	30
Year	89	54	-14	30	42	124 #	77	49	21	37	43	42
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Atomic Energy Commission, U. S. Army Quartermaster Re- search and Development Command, and University of Colorado. X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze- free Period. *Permanent Wilting Per- centage : 4% & 4% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
January	8	.65	N-D	29	28	84	8	42	63			
February	7	2.35	N-D	N-D	N-D	96	17	46	71			
March	9	1.65	N-D	26	N-D	85	18	35	60			
April	10	2.15	N-D	11	7	76	11	32	54			
May	5	4.00	N-D	N-D	N-D	83	14	33	58			
June	6	.93	N-D	5	5	86	7	30	58			
July	5	2.05	0	7	4	N-D	N-D	N-D	N-D			
August	6	1.75	0	4	4	N-D	N-D	N-D	N-D			
September	5	1.16	N-D	4	4	N-D	N-D	N-D	N-D			
October	5	2.10	N-D	14	13	N-D	N-D	N-D	N-D			
November	9	.80	N-D	14	N-D	75	6	28	52			
December	8	1.77	N-D	17	N-D	84	9	36	60			
Year	7	21.36										

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**ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT**

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. B-1 Altitude 8,500 Ft. Site Ridgetop Summary for 1961

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	58	40	-9	18	29	1	30	29	23	24	26	27
February	57	39	2	17	28	1	30	29	25	25	27	28
March	55	40	4	19	29	0	33	32	26	28	30	30
April	65	44	9	22	33	4	47	36	30	30	33	33
May	74	57	25	35	46	20 x 18	60	53	35	37	45	44
June	84	69	34	48	57	30	73	68	43	46	58	55
July	84	74	39	49	61	31	72	71	50	53	61	60
August	85	73	42	49	61	31	74	72	53	55	63	62
September	74	57	22	35	46	13 x 2	63	58	38	40	49	49
October	70	56	10	31	44	14	47	46	35	37	42	42
November	57	40	7	18	29	0	39	36	32	33	34	35
December	50	31	-15	12	21	0	33	32	28	30	31	32
Year	85	52	-15	29	40	107	74	47	23	36	42	41

Month	WIND Average Vel mph	PRECIP Inches Water	SNOW Max Depth	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U. S. Atomic Energy Commission and the University of Colorado  X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze- free Period. *Permanent Wilting Per- centage : 4% and 4% **Maximum 100% Every Month.
				5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	
January	7	1.25	N-D	16°	N-D	64	10	29	47	
February	7	1.50	N-D	18	N-D	89	16	39	64	
March	7	2.95	N-D	26	N-D	91	14	43	67	
April	8	2.70	N-D	15	N-D	93	12	35	64	
May	5	3.80	N-D	13	14	92	5	39	65	
June	5	2.37	N-D	12	13	84	10	36	60	
July	5	2.59	0	7	6	88	14	33	60	
August	4	1.94	0	11	8	90	14	36	63	
September	5	4.20	N-D	13	14	84	9	36	60	
October	6	1.72	N-D	13	12	76	10	31	53	
November	6	1.70	N-D	12	13	85	9	37	61	
December	10	.75	N-D	17	N-D	84	20	28	61	
Year	6	27.47				85	5	36	60	

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**ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT**

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. B-1 Altitude 8,500 Ft. Site Ridgetop Summary for 1962

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	57	33	-20	11	22	1	32	31	27	28	29	30
February	60	38	-24	15	26	4	32	32	28	29	30	31
March	56	38	-5	15	27	1	32	32	28	29	30	31
April	72	52	9	29	41	12	52	43	30	32	38	35
May	79	61	22	37	49	22	61	57	33	40	49	47
June	83	67	31	43	55	29 x 8	74	66	41	47	56	54
July	85	77	39	50	63	31	75	73	52	55	64	62
August	91	78	33	49	64	31	76	74	52	56	65	63
September	79	68	24	43	56	28 x 8	68	63	48	49	56	55
October	74	60	24	35	48	20	58	49	35	38	43	44
November	59	46	11	27	37	6	42	37	28	30	34	36
December	58	41	-6	20	30	2	32	30	22	25	27	29
Year	91	55	-24	31	43	92	76	49	22	38	43	43

Month	WIND Average Vel mph	PRECIP Inches Water	SNOW Max Depth	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U.S. Atomic Energy Commission and the University of Colorado  X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze- free Period. *Permanent Wilting Per- centage : 4% and 4% **Maximum 100% Every Month.
				5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	
January	6	1.85	18	N-D	N-D	75	16	38	56	
February	8	1.00	19	13	14	86	21	39	63	
March	7	1.40	18	34	23	86	18	33	60	
April	5	2.70	13	16	14	81	11	31	56	
May	6	1.97	0	15	15	74	16	31	52	
June	4	1.60	0	8	11	88	15	36	62	
July	5	1.86	0	N-D	N-D	84	16	28	56	
August	6	.60	0	4	4	64	6	23	43	
September	N-D	.91	0	3	4	72	6	24	48	
October	5	.86	T	4	5	74	8	25	50	
November	7	.50	4	4	4	69	14	28	48	
December	8	.50	3	4	4	76	12	35	55	
Year	6	15.75	19			77	6	31	54	

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## ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. B-1 Altitude 8,500 Ft. Site Ridgetop Summary for 1963

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					11-13 In. Mean of Weekly Max & Min
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.					
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	
January	53	29	-32	6	18	1	28	26	18	21	23	25
February	58	40	-7	19	30	2	32	30	24	26	28	28
March	60	43	0	19	31	5	42	33	24	27	30	29
April	72	52	19	27	40	7	51	48	34	36	42	41
May	77	65	29	38	52	26 x 23	63	60	40	45	53	51
June	84	71	34	46	58	30	75	70	46	52	61	58
July	90	80	43	53	66	31	76	75	56	59	67	64
August	85	71	44	50	60	31	74	68	53	54	61	60
September	80	69	38	46	57	30	68	64	48	50	57	56
October	76	63	16	40	51	27 x 25	58	53	37	43	48	49
November	60	47	13	26	37	7	39	37	30	33	35	37
December	54	36	-13	17	27	1	32	30	24	26	28	30
Year	90	56	-32	32	44	156	76	50	18	39	44	44
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U.S. Atomic Energy Commission and the University of Colorado  X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 4% and 4% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
January	10	1.60	6	3	4	81	20	40	60			
February	8	1.40	12	5	5	82	10	37	59			
March	8	2.45	16	18	15	74	14	31	52			
April	8	.40	N-D	10	9	79	3	22	51			
May	5	.87	0	6	5	80	12	26	53			
June	N-D	4.50	0	7	9	67	5	24	45			
July	5	2.34	0	11	11	79	9	29	54			
August	4	4.54	0	11	12	94	21	42	68			
September	4	2.93	0	10	10	86	16	37	61			
October	4	1.01	2	11	8	68	7	32	50			
November	6	1.05	3	9	9	72	15	30	51			
December	9	.80	5	2	4	71	3	32	52			
Year	6	23.89	16.			78	3	32	55			

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## ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. B-1 Altitude 8,500 Ft. Site Ridgetop Summary for 1964

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					11-13 In. Mean of Weekly Max & Min
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.					
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	
January	50	33	-8	12	22	0	30	28	22	24	26	27
February	49	30	-4	8	19	0	28	28	24	25	26	27
March	55	38	-5	12	25	0	32	31	25	27	29	29
April	62	46	8	24	34	3	49	39	30	32	35	35
May	80	61	20	35	48	16	63	58	36	40	49	47
June	83	66	31	42	54	28 x 3	67	62	38	46	54	52
July	87	80	47	54	67	31	74	72	52	56	64	60
August	83	74	35	46	60	31	72	69	52	55	62	61
September	82	67	25	41	54	25 x 18	69	63	41	48	55	55
October	72	59	17	32	46	13	56	50	32	37	44	45
November	63	43	6	22	32	4	40	36	29	30	33	35
December	48	34	-14	15	25	1	33	31	21	25	28	29
Year	87	53	-14	29	41	106	74	47	21	37	42	42
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Army Research Office and the University of Colorado  X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 4% and 4% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
January	12	.90	N-D	6	5	72	10	28	50			
February	9	2.00	N-D	5	15	87	12	35	61			
March	7	1.80	N-D	6	8	90	23	45	68			
April	8	2.00	N-D	14	13	92	25	49	70			
May	6	1.73	N-D	11	11	81	14	39	60			
June	5	1.39	N-D	6	6	84	17	38	60			
July	5	3.24	0	8	5	77	17	31	54			
August	5	.85	0	N-D	N-D	82	18	31	57			
September	5	.85	N-D	N-D	N-D	76	4	27	51			
October	5	.27	N-D	N-D	N-D	70	7	20	45			
November	8	1.10	N-D	N-D	N-D	72	6	32	52			
December	11	1.20	N-D	N-D	N-D	80	8	31	55			
Year	7	17.33				81	4	34	57			

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## ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. C-1 Altitude 10,000 Ft. Site Ridgetop Summary for 1959

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.					11-13 In.
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	54	26	-17	9	18	0	31	29	16	18	24	27
February	39	27	-8	8	17	0	30	28	16	19	24	26
March	42	29	-2	12	20	0	32	30	18	21	26	27
April	58	38	2	20	29	3	47	36	29	31	33	31
May	59	47	16	28	38	5	56	51	34	34	43	39
June	72	64	27	37	51	27	71	68	39	45	56	52
July	75	66	29	38	52	26 x9	76	73	48	49	61	57
August	75	65	34	42	53	31	76	71	47	48	59	56
September	72	55	7	32	44	14 x2	71	59	34	42	50	50
October	58	45	9	25	35	7	44	39	33	33	36	37
November	54	34	-2	18	26	0	35	32	24	26	29	33
December	49	35	1	16	26	0	32	31	21	21	26	29
Year	75	44	-17	24	34	55 #	76	46	16	32	39	39
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Atomic Energy Commission, U. S. Army Quartermaster Research and Development Command, and University of Colorado. X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 5% & 9% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
January	13	2.25	43	15	12	89	13	45	67			
February	12	1.95	53	9	N-D	90	17	45	68			
March	12	3.15	66	N-D	N-D	92	8	45	68			
April	9	3.10	77	19	19	82	10	35	58			
May	7	3.20	43	14	15	94	11	43	68			
June	6	1.91	0	30	22	97	14	29	63			
July	5	2.71	0	15	19	96	13	30	63			
August	5	2.11	0	14	21	87	14	31	59			
September	7	3.65	24	17	14	87	16	36	61			
October	9	2.50	17	11	14	81	4	33	57			
November	16	.95	16	16	24	69	2	29	49			
December	10	1.15	14	13	N-D	75	4	24	49			
Year	9	27.63	77			86	2	35	61			

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## ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. C-1 Altitude 10,000 Ft. Site Ridgetop Summary for 1960

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.					11-13 In.
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	48	25	-16	10	18	0	31	28	13	19	24	26
February	37	20	-25	3	12	0	30	28	18	20	24	26
March	50	33	-2	17	25	2	39	31	22	25	28	28
April	58	43	3	23	33	5	50	46	28	31	38	33
May	64	51	13	28	39	6	55	47	31	33	40	36
June	75	62	31	38	50	25 x13	75	67	41	47	57	51
July	77	66	33	39	53	31	75	72	46	49	60	56
August	77	68	30	39	54	25 x16	76	71	43	47	59	57
September	76	61	27	36	48	18	72	64	40	43	53	52
October	63	48	9	28	38	8	58	48	33	37	43	43
November	54	38	5	19	28	0	34	33	24	28	30	34
December	48	32	-8	11	22	1	32	29	20	23	26	29
Year	77	46	-25	24	35	64 #	76	47	13	34	40	39
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Atomic Energy Commission, U. S. Army Quartermaster Research and Development Command, and University of Colorado. X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 5% & 9% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
January	12	1.25	21	8	12	91	10	52	71			
February	9	2.45	37	18	N-D	100	16	62	81			
March	11	2.80	50	14	17	92	23	50	71			
April	9	2.35	45	13	13	82	17	39	61			
May	6	3.40	40	17	17	93	18	38	66			
June	6	3.15	0	9	13	93	19	35	64			
July	5	2.37	0	5	7	100	24	49	75			
August	6	1.45	0	8	11	83	8	22	52			
September	6	1.99	0	11	11	91	10	30	60			
October	8	1.05	10	N-D	N-D	79	10	34	57			
November	13	1.40	13	N-D	N-D	75	4	26	50			
December	11	2.30	24	N-D	N-D	94	9	40	67			
Year	8	25.96	50			89		40	65			

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ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. C-1 Altitude 10,000 Ft. Site Ridgetop Summary for 1961

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	47	32	-12	12	22	0	29	28	14	18	23	25
February	46	31	-10	12	22	1	31	30	22	24	27	28
March	46	32	0	14	23	0	32	31	19	26	29	30
April	54	37	0	19	28	3	38	34	31	32	33	32
May	63	50	22	30	40	11	58	52	32	34	43	38
June	75	62	31	38	50	27 x 17	68	62	36	42	52	49
July	73	66	33	41	54	31	72	69	44	47	58	55
August	73	64	32	41	52	29 x 23	70	67	47	49	58	55
September	68	50	17	29	40	9	59	56	34	37	46	46
October	63	49	9	27	38	5	50	48	34	34	41	40
November	50	37	-4	12	25	1	35	33	28	30	32	33
December	39	22	-14	8	15	0	30	26	15	19	23	27
Year	75	44	-14	24	34	67	72	45	14	33	39	38
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U. S. Atomic Energy Commission and the University of Colorado  X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze- free Period. *Permanent Wilting Per- centage : 5% and 9% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
	January	12	.90	26	12	12	66	9	26		46	
February	10	1.55	41	ND	ND	92	14	41	67			
March	9	2.70	53	11	15	95	12	44	70			
April	9	3.80	63	18	17	94	11	42	68			
May	6	3.70	48	16	18	93	5	33	63			
June	5	3.70	0	11	16	96	10	33	64			
July	5	3.84	0	18	16	97	19	36	66			
August	4	2.95	0	7	17	99	17	40	70			
September	7	5.18	12	15	13	98	10	37	67			
October	9	1.60	8	15	19	78	6	27	52			
November	10	1.50	23	17	18	92	8	37	65			
December	13	1.70	26	15	18	94	16	48	71			
Year	8	33.12	63			91	5	37	64			

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ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. C-1 Altitude 10,000 Ft. Site Ridgetop Summary for 1962

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	43	28	-34	10	19	0	30	26	13	17	21	24
February	50	30	-13	15	23	2	32	31	20	22	26	28
March	47	30	-19	10	20	0	34	31	14	20	25	26
April	62	44	12	24	34	5	48	40	31	32	36	32
May	64	51	20	30	41	8	55	50	32	34	42	38
June	72	59	26	34	46	18	69	61	35	39	50	46
July	74	66	28	39	52	30 x 15	76	73	47	49	61	56
August	76	67	27	40	54	28 x 24	76	74	45	50	62	58
September	69	61	22	34	47	15	68	65	40	43	54	53
October	63	51	20	28	40	7	60	55	35	37	46	44
November	54	40	0	22	31	1	49	41	28	30	36	37
December	55	32	-15	16	24	0	37	35	18	25	30	32
Year	76	47	-34	25	36	39	76	48	13	33	41	40
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U. S. Atomic Energy Commission and the University of Colorado  X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze- free Period. *Permanent Wilting Per- centage : 5% and 9% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
	January	12	2.55	48	18	21	75	8	39		57	
February	12	1.85	45	N-D	N-D	88	20	45	66			
March	9	1.50	51	14	17	88	10	32	60			
April	6	3.60	51	15	16	85	9	32	59			
May	7	2.80	30	18	22	86	14	28	57			
June	5	1.85	0	15	21	98	10	31	64			
July	5	1.61	0	N-D	N-D	95	12	25	60			
August	6	.65	0	4	9	82	10	25	53			
September	5	.87	0	5	9	82	10	29	55			
October	7	.65	0	8	17	82	9	33	58			
November	9	1.00	6	6	N-D	78	16	40	59			
December	12	1.10	12	5	N-D	81	12	44	63			
Year	8	20.03	51			85	8	34	59			

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## ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. C-1 Altitude 10,000 Ft. Site Ridgetop Summary for 1963

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					11-13 In. Mean of Weekly Max & Min
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.					
							Max	Mean Weekly Max	Min	Mean Weekly Min		
January	47	23	-33	5	14	0	31	26	10	16	21	25
February	53	31	-23	13	22	0	29	27	20	23	25	26
March	50	31	-6	11	21	0	45	31	17	20	26	27
April	60	42	8	22	32	2	55	50	28	31	41	37
May	65	56	25	32	44	13	65	63	35	40	51	47
June	74	62	30	36	49	24 x 18	78	69	40	44	56	53
July	75	69	33	42	55	31	78	75	48	52	63	60
August	73	63	36	42	53	31	65	65	46	48	56	55
September	69	62	28	36	49	24 x 23	64	62	42	44	53	52
October	64	54	12	31	43	13	59	55	36	40	46	47
November	51	40	10	22	31	1	42	37	28	31	34	36
December	45	28	-12	11	20	0	32	31	18	22	26	30
Year	75	47	-33	25	36	97 #	78	49	10	34	42	41

Month	WIND Average Vel mph	PRECIP Inches Water	SNOW Max Depth	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U. S. Atomic Energy Commission and the University of Colorado  Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 5% and 9% **Maximum 100% Every Month.
				5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	
January	14	3.30	24	11	N-D	88	21	50	69	
February	11	2.70	40	N-D	N-D	91	10	42	67	
March	11	2.20	44	6	9	86	12	40	63	
April	8	1.15	35	6	12	93	15	33	63	
May	6	1.45	13	11	11	90	10	30	60	
June	5	3.20	0	7	12	90	6	31	60	
July	5	2.50	0	11	12	92	10	28	60	
August	4	7.13	0	17	17	99	23	47	73	
September	4	3.30	0	15	17	100	15	39	69	
October	6	.70	0	10	11	91	9	26	59	
November	9	1.00	5	12	15	71	4	22	46	
December	12	1.60	14	10	10	81	9	40	61	
Year	8	30.23	44			89	4	36	62	

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## ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. C-1 Altitude 10,000 Ft. Site Ridgetop Summary for 1964

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					11-13 In. Mean of Weekly Max & Min
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.					
							Max	Mean Weekly Max	Min	Mean Weekly Min		
January	39	21	-20	5	13	0	30	27	12	16	21	25
February	38	21	-9	4	12	0	28	27	14	16	22	24
March	46	26	-12	7	17	0	32	30	15	19	25	26
April	52	37	5	20	28	1	46	38	28	30	34	31
May	69	52	15	29	41	12	66	63	32	35	51	41
June	71	58	29	35	46	21 x 25	67	59	34	40	49	45
July	75	71	35	43	57	31	74	72	46	51	61	56
August	71	62	27	38	50	24 x 20	72	67	43	48	58	55
September	66	58	20	33	45	15	67	61	37	42	52	50
October	60	50	12	27	39	6	57	50	34	37	44	44
November	55	36	5	17	26	0	42	38	25	28	34	35
December	39	25	-11	9	17	0	31	29	16	22	26	28
Year	75	43	-20	22	33	55 #	74	47	12	32	40	38

Month	WIND Average Vel mph	PRECIP Inches Water	SNOW Max Depth	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Army Research Office and the University of Colorado  X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 5% and 9% **Maximum 100% Every Month.
				5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	
January	13	1.10	19	12	2	86	4	37	62	
February	11	2.00	29	12	11	91	10	34	62	
March	10	2.50	42	7	24	87	11	37	62	
April	10	2.57	58	15	18	90	10	37	64	
May	6	1.88	28	13	18	90	10	21	59	
June	6	2.02	0	11	16	99	7	35	67	
July	5	2.83	0	15	20	96	15	28	62	
August	6	1.99	0	N-D	N-D	98	15	30	64	
September	5	1.79	0	N-D	N-D	92	11	33	62	
October	9	.50	N-D	N-D	N-D	78	11	28	52	
November	12	1.45	N-D	N-D	N-D	84	7	40	62	
December	14	3.15	30	N-D	N-D	94	7	41	68	
Year	9	23.78	58			90	4	33	62	

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## ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No.   D-1   Altitude  12,300  Ft. Site  Ridgetop  Summary for  1959 

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.				11-13 In.	
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	39	13	-24	3	8	0	22	19	9	11	15	17
February	23	13	-11	1	7	0	18	17	9	10	13	15
March	25	16	-10	5	10	0	22	19	8	11	15	16
April	44	24	- 6	11	18	0	30	27	18	20	24	22
May	45	36	10	22	29	0	35	33	26	29	31	30
June	58	51	22	36	43	22	49	47	31	36	41	38
July	57	52	27	37	45	28 x10	55	52	38	40	46	44
August	62	51	32	39	45	30 x5	55	53	41	42	47	46
September	59	44	7	31	37	13	53	48	33	38	43	43
October	45	30	- 2	18	24	0	33	32	29	30	31	32
November	35	20	-14	8	14	0	31	27	14	17	22	24
December	34	20	-11	8	14	0	23	22	11	13	18	20
Year	62	31	-24	18	25	27	55	33	8	25	29	29

Month	WIND Average Vel mph	PRECIP Inches Water	SNOW Max Depth	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Atomic Energy Commission, U. S. Army Quartermaster Re- search and Development Command, and University of Colorado. X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze- free Period. *Permanent Wilting Per- centage : 18% & 4% **Maximum 100% Every Month.
				5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	
January	25	2.50	N-D	28	N-D	91	18	62	76	
February	24	2.25	N-D	23	N-D	98	21	70	84	
March	24	1.95	N-D	37	N-D	99	26	76	87	
April	20	1.70	N-D	42	22	92	21	61	77	
May	15	2.80	N-D	49	22	97	16	42	69	
June	12	1.85	N-D	42	26	88	14	31	60	
July	12	2.70	0	41	21	81	17	35	58	
August	12	2.65	0	50	27	81	13	37	59	
September	15	2.80	N-D	N-D	N-D	72	10	43	55	
October	22	2.45	N-D	19	12	94	8	50	70	
November	28	.80	N-D	32	21	82	8	47	66	
December	27	.40	N-D	35	23	84	6	34	59	
Year	19	24.85				88	6	49	68	

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## ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No.   D-1   Altitude  12,300  Ft. Site  Ridgetop  Summary for  1960 

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.				11-13 In.	
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	31	10	-18	2	6	0	21	18	5	9	13	14
February	20	6	-20	- 5	0	0	20	16	4	8	12	14
March	36	18	-10	- 7	13	0	24	23	6	12	20	16
April	45	28	- 3	14	21	0	31	29	9	18	23	26
May	50	36	10	22	29	2	42	35	25	28	31	30
June	60	49	27	34	42	17	52	47	34	35	41	39
July	60	53	31	39	46	30 x6	55	53	40	41	47	44
August	63	54	19	38	46	25 x15	54	53	35	40	46	46
September	61	47	24	33	40	15	54	46	35	37	42	41
October	49	34	- 3	21	28	1	42	37	26	31	34	35
November	37	21	- 6	11	16	0	30	27	16	21	24	27
December	35	18	-13	5	12	0	25	21	12	14	17	19
Year	63	31	-20	19	25	41	55	34	4	25	29	29

Month	WIND Average Vel mph	PRECIP Inches Water	SNOW Max Depth	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Atomic Energy Commission, U. S. Army Quartermaster Re- search and Development Command, and University of Colorado. X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze- free Period. *Permanent Wilting Per- centage : 18% & 4% **Maximum 100% Every Month.
				5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	
January	25	1.10	N-D	35	N-D	96	3	59	77	
February	21	2.05	N-D	39	N-D	100	11	73	86	
March	22	2.75	N-D	67	N-D	94	28	71	82	
April	19	1.35	N-D	57	N-D	91	8	47	69	
May	13	2.10	N-D	44	N-D	86	14	40	63	
June	14	1.30	N-D	29	17	79	13	27	53	
July	9	2.48	0	21	13	87	17	41	64	
August	13	1.60	0	16	9	74	18	31	52	
September	13	1.70	N-D	31	17	86	24	39	63	
October	17	1.35	N-D	44	N-D	83	20	51	67	
November	27	.65	N-D	31	26	84	10	41	62	
December	25	1.00	N-D	34	18	80	12	45	65	
Year	18	19.43				88	3	47	67	

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ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. D-1 Altitude 12,300 Ft. Site Ridgetop Summary for 1961

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
January	30	18	-8	7	12	0	20	18	8	11	15	16
February	30	16	-9	4	10	0	23	20	12	13	17	18
March	38	19	-6	6	13	0	27	24	11	14	19	20
April	41	23	-3	11	17	0	29	27	16	18	22	23
May	50	38	13	25	32	5	42	34	26	28	31	30
June	59	47	25	35	41	17	51	47	31	36	41	38
July	60	52	29	38	45	26 x 23	52	52	37	39	45	44
August	59	52	31	39	45	30 x 31	55	52	41	42	47	45
September	49	37	8	25	31	6	47	42	32	35	38	38
October	49	34	4	21	28	1	34	32	28	30	31	32
November	32	21	-7	9	15	0	31	26	17	21	24	23
December	22	9	-20	-2	4	0	23	18	5	8	13	14
Year	60	30	-20	18	24	38 #	55	33	5	25	29	28
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U. S. Atomic Energy Commission and the University of Colorado X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 10% and 4% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
January	24	1.00	N-D	21	14	72	6	34	53			
February	21	1.55	N-D	N-D	N-D	97	12	57	77			
March	19	2.00	N-D	52	N-D	99	20	76	88			
April	21	3.35	N-D	33	21	94	16	63	79			
May	14	2.40	N-D	36	20	89	8	37	63			
June	11	3.20	N-D	53	24	81	8	32	56			
July	10	4.40	0	35	15	90	11	34	62			
August	10	3.50	0	69	23	95	8	40	68			
September	19	5.90	N-D	51	27	94	1	46	70			
October	20	1.00	N-D	35	27	80	4	30	55			
November	16	1.60	N-D	34	20	85	6	34	59			
December	27	2.20	N-D	27	26	99	27	73	86			
Year	18	32.10				90	1	46	68			

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ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. D-1 Altitude 12,300 Ft. Site Ridgetop Summary for 1962

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
January	28	14	-27	2	7	0	20	16	6	8	12	12
February	32	15	-20	5	10	0	24	21	10	13	17	18
March	30	15	-15	2	8	0	23	19	-4	5	12	15
April	49	30	-6	16	23	0	33	29	8	20	24	25
May	50	38	8	24	31	4	39	37	31	31	34	32
June	57	47	20	32	40	15	48	45	32	34	39	36
July	60	54	32	39	46	30 x 15	55	53	40	42	47	45
August	59	54	24	38	46	27 x 23	55	54	38	31	47	45
September	56	46	15	32	39	16	51	48	34	37	42	41
October	49	38	16	26	32	3	39	36	29	31	33	34
November	39	26	-1	16	21	0	32	29	22	24	26	28
December	39	19	-18	9	14	0	26	24	10	17	20	22
Year	60	33	-27	20	26	38 #	55	34	-4	24	29	29
Month	WIND	PRECIP	SNOW	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U. S. Atomic Energy Commission and the University of Colorado X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year. #Duration of Longest Freeze-free Period. *Permanent Wilting Percentage : 10% and 4% **Maximum 100% Every Month.		
	Average Vel mph	Inches Water	Max Depth	5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
January	24	2.10	N-D	30	16	85	8	44	69			
February	25	2.40	N-D	N-D	N-D	98	22	73	86			
March	21	1.50	N-D	59	27	94	14	55	75			
April	17	2.40	N-D	30	33	82	10	49	66			
May	18	2.30	N-D	21	14	82	16	34	58			
June	11	1.60	N-D	52	40	88	15	30	59			
July	13	1.60	0	N-D	N-D	83	10	28	56			
August	13	.80	0	13	12	78	15	35	56			
September	15	1.31	N-D	19	8	72	15	38	55			
October	20	1.00	N-D	41	12	84	17	53	68			
November	21	.85	N-D	23	30	92	16	52	72			
December	25	1.30	N-D	23	16	93	16	60	77			
Year	19	19.16				86	8	46	66			

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ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. D-1 Altitude 12,300 Ft. Site Ridgetop Summary for 1963

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					Front Range Ecology Project Supported by the U. S. Atomic Energy Commission and the University of Colorado
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
							Max	Mean Weekly Max	Min		Mean Weekly Min	
January	33	10	-34	0	5	0	20	15	1	5	10	12
February	41	16	-16	5	10	0	20	19	10	12	15	16
March	39	19	-10	6	12	0	29	21	9	12	16	16
April	46	27	2	14	20	0	30	30	20	22	26	26
May	52	43	17	28	35	4	43	42	28	32	37	33
June	62	50	26	36	43	17 x 21	53	48	33	36	42	39
July	63	58	38	42	50	31	56	54	44	44	49	47
August	60	52	35	39	45	31	55	52	40	42	46	46
September	58	50	30	37	43	27 x 1	50	48	37	38	43	43
October	51	41	9	29	35	9	45	41	32	35	38	38
November	38	26	-1	14	20	0	32	29	20	24	27	29
December	34	16	-13	4	10	0	24	20	2	11	16	19
Year	63	34	-34	21	27	72 #	56	35	1	26	30	30
Month	WIND Average Vel mph	PRECIP Inches Water	SNOW Max Depth	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by the U. S. Atomic Energy Commission and the University of Colorado		
				5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
											Mean Daily Max	Min
January	26	3.50	N-D	N-D	N-D	90	23	70	80	X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year.		
February	24	3.80	N-D	N-D	N-D	100	42	80	90	#Duration of Longest Freeze-free Period.		
March	22	1.30	N-D	19	9	92	18	58	75	*Permanent Wilting Percentage : 10% and 4%		
April	17	2.40	N-D	22	16	94	20	56	75	**Maximum 100% Every Month.		
May	14	1.10	N-D	12	11	92	24	41	66			
June	11	4.50	N-D	31	24	81	11	38	59			
July	10	2.00	0	15	8	86	15	31	58			
August	9	7.60	0	35	20	96	27	50	73			
September	11	3.80	N-D	29	22	86	6	39	62			
October	15	.40	N-D	51	20	86	15	42	64			
November	22	.60	N-D	43	23	87	11	40	64			
December	27	1.10	N-D	42	24	85	14	43	64			
Year	17	32.10				90	6	49	69			

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ANNUAL SUMMARY OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. D-1 Altitude 12,300 Ft. Site Ridgetop Summary for 1964

Month	TEMPERATURE, AIR °F					No Days Min Temp Above 32 °F	TEMPERATURE SOIL °F,					Front Range Ecology Project Supported by U. S. Army Research Office and the University of Colorado
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5 - 7 In.			11-13 In.		
							Max	Mean Weekly Max	Min		Mean Weekly Min	
January	26	10	-15	-2	4	0	19	18	4	5	12	14
February	22	7	-15	-6	1	0	17	14	4	6	10	12
March	30	12	-11	-1	6	0	21	16	6	7	12	13
April	38	24	0	12	18	0	29	28	16	18	23	23
May	56	38	3	23	31	8	46	40	24	28	34	31
June	56	43	18	29	36	9 x 24	48	42	31	34	38	36
July	62	56	34	42	49	31	56	54	39	42	48	45
August	56	48	19	34	41	19 x 10	54	50	36	40	45	44
September	54	44	21	30	37	12	48	44	34	37	40	40
October	47	37	13	24	30	1	38	36	30	32	34	35
November	44	21	-5	10	15	0	32	30	18	22	26	28
December	27	13	-17	3	8	0	21	20	-3	10	15	18
Year	62	29	-15	17	23	46 #	56	33	-03	23	28	28
Month	WIND Average Vel mph	PRECIP Inches Water	SNOW Max Depth	SOIL MOIST % DRY WT.*		RELATIVE HUMIDITY**				Front Range Ecology Project Supported by U. S. Army Research Office and the University of Colorado		
				5-7 In.	11-13 In.	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min			
											Mean Daily Max	Min
January	24	Incomplete	N-D	42	30	97	16	63	79	X Dates for Beginning and Ending of Longest Period of Consecutive Days Without Freezing Temperature During the Year.		
February	24	Data	N-D	33	17	98	22	53	76	#Duration of Longest Freeze-free Period.		
March	23		N-D	46	23	N-D	N-D	N-D	N-D	*Permanent Wilting Percentage : 10% and 4%		
April	22		N-D	37	19	N-D	N-D	N-D	N-D	**Maximum 100% Every Month.		
May	14	1.50	N-D	29	20	88	12	45	67			
June	14	2.20	N-D	62	24	94	17	48	72			
July	9	1.50	0	22	11	90	18	42	66			
August	16	2.29	0	N-D	N-D	93	16	39	66			
September	15	1.43	N-D	N-D	N-D	87	13	34	61			
October	18	.30	N-D	N-D	N-D	68	6	29	48			
November	22	1.60	N-D	N-D	N-D	83	0	42	61			
December	23	2.30	N-D	N-D	N-D	96	0	43	68			
Year	19	15.12**				89***	0	44	66			

\* Total for period May - December only.

\*\* Does not include March and April.

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#### IV. TWELVE-YEAR PERIOD SUMMARIES BY YEARS

**PERIOD SUMMARY BY YEARS OF MOUNTAIN ENVIRONMENT**  
 UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. A-1 Altitude 7,200 Ft. Site Ridgetop Summary for 1953-1964

Year	TEMPERATURE, AIR °F					LONGEST PERIOD OF TEMP. ABOVE 32 °F			TEMPERATURE, SOIL °F					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	Date Began	Days Duration	Date Ended	5 - 7 In.					
									Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
1953	96	59	-3	36	49	May 14	139	Oct 3	81	53	25	41	47	47
1954	100	62	-6	36	49	Jun 3	119	Sep 29	85	56	14	41	48	48
1955	92	58	-7	34	46	May 29	118	Sep 24	80	54	24	40	46	46
1956	94	ND	-8	ND	ND	ND	ND	Oct 29	84	55	21	40	47	47
1957	97	58	-5	35	46	May 22	156	Oct 24	88	54	21	38	46	45
1958	95	60	-2	38	48	May 1	148	Sep 25	79	53	19	43	48	47
1959	93	58	-15	34	46	May 23	129	Sep 28	77	52	28	42	47	46
1960	93	58	-8	34	46	May 21	142	Oct 9	80	54	25	43	48	47
1961	91	56	-12	33	44	May 15	111	Sep 3	80	52	26	41	47	45
1962	98	60	-18	35	48	May 1	130	Sep 7	80	55	26	43	49	48
1963	94	60	-29	36	48	May 19	161	Oct 27	80	56	20	44	50	49
1964	94	57	-12	33	45	May 31	119	Sep 26	80	53	19	41	47	46
Period	100	59	-29	35	47	May 19	131	Sep 30	88	54	14	41	48	47

Year	WIND MONTHLY VEL., mph			PRECIP., IN. WATER			SOIL MOISTURE % DRY WT. * MONTH END				RELATIVE HUMIDITY **			
	Max	Min	Mean	MONTH		Total	5-7 In.				11-13 In.			
				Max	Min		Max	Min	Mean	Mean	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min
1953	11	5	7	3.15	.08	21.05	24	3	10	9	76	6	31	54
1954	10	4	7	1.85	.20	11.14	11	2	5	6	75	3	32	53
1955	9	5	7	2.96	.35	18.48	12	5	9	8	75	3	30	52
1956	9	5	6	4.95	.00	19.44	24	3	9	9	ND	ND	ND	ND
1957	11	4	6	8.35	.30	28.96	12	3	7	7	88	4	43	65
1958	7	3	6	3.70	.30	23.93	15	4	8	8	80	6	36	58
1959	9	5	6	3.70	.10	24.13	15	7	11	9	82	4	37	60
1960	8	5	6	4.28	.80	21.19	15	3	9	7	79	4	31	55
1961	7	3	6	5.16	.80	28.93	16	5	10	10	80	6	32	56
1962	7	5	6	2.45	.40	15.34	38	2	10	7	75	5	29	52
1963	8	5	6	4.69	.40	22.68	12	3	6	6	76	1	31	53
1964	10	5	7	2.21	.57	16.64	ND	ND	ND	ND	82	3	37	59
Period	11	5	6	8.35	.00	20.96	38	2	9	8	79	1	34	56

\* Permanent Wilting Percentage: 4% & 4%      Front Range Ecology Project Supported by U. S. Atomic Energy Commission, U. S. Army Quartermaster Research and Development Command, and University of Colorado  
 \*\* Maximum 100% Every Month  
 a Mean Annual for Period

**PERIOD SUMMARY BY YEARS OF MOUNTAIN ENVIRONMENT**  
 UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. B-1 Altitude 8,500 Ft. Site Ridgetop Summary for 1953-1964

Year	TEMPERATURE, AIR °F					LONGEST PERIOD OF TEMP. ABOVE 32 °F			TEMPERATURE, SOIL °F					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	Date Began	Days Duration	Date Ended	5 - 7 In.					
									Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
1953	89	54	-6	31	43	May 26	100	Sep 3	72	47	22	39	43	43
1954	94	58	-11	32	44	Jun 7	106	Sep 21	78	49	8	38	44	44
1955	87	53	-11	29	41	Jun 10	106	Sep 24	74	47	18	37	42	42
1956	86	ND	-14	ND	ND	ND	ND	Aug 31	75	49	19	38	44	44
1957	90	53	-12	31	42	May 24	111	Sep 13	75	46	19	37	42	41
1958	87	55	-2	31	43	Jun 26	80	Sep 14	79	47	16	38	42	42
1959	87	53	-20	30	41	May 24	122	Sep 23	73	47	23	38	42	42
1960	89	54	-14	30	42	May 31	114	Sep 21	77	49	21	37	43	42
1961	85	52	-15	29	40	May 18	107	Sep 2	74	47	23	36	42	41
1962	91	55	-24	31	43	Jun 8	92	Sep 8	76	49	22	38	43	43
1963	90	56	-32	32	44	May 23	155	Oct 25	76	50	18	39	44	44
1964	87	53	-14	29	41	Jun 3	107	Sep 18	74	47	21	37	42	42
Period	94	54	-32	30	42	Jun 1	109	Sep 17	79	48	8	37	43	42

Year	WIND MONTHLY VEL., mph			PRECIP., IN. WATER			SOIL MOISTURE % DRY WT. * MONTH END				RELATIVE HUMIDITY **			
	Max	Min	Mean	MONTH		Total	5-7 In.				11-13 In.			
				Max	Min		Max	Min	Mean	Mean	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min
1953	14	5	8	3.55	.10	22.38	16	4	8	7	82	7	39	61
1954	11	5	7	1.57	.20	10.47	15	3	8	7	81	10	32	56
1955	11	4	8	3.50	.25	18.01	14	3	10	9	80	5	33	56
1956	8	4	6	3.50	.01	18.21	17	3	8	9	ND	ND	ND	ND
1957	12	4	6	8.25	.15	30.66	20	5	11	11	87	6	42	65
1958	10	4	6	5.15	.45	26.00	17	5	10	9	82	10	37	60
1959	11	5	7	3.40	.10	22.77	19	4	12	10	82	10	37	59
1960	10	5	7	4.00	.65	21.36	29	4	13	9	ND	ND	ND	ND
1961	10	4	6	4.20	.75	27.47	26	7	14	ND	85	5	36	60
1962	8	4	6	2.70	.50	15.75	34	3	10	10	77	6	31	54
1963	10	4	6	4.50	.40	23.89	18	2	9	8	78	3	32	55
1964	12	5	7	3.24	.27	17.33	ND	ND	ND	ND	81	4	34	57
Period	14	4	7	8.25	.01	21.19	34	2	10	9	82	3	35	58

\* Permanent Wilting Percentage: 4% & 4%      Front Range Ecology Project Supported by U. S. Atomic Energy Commission, U. S. Army Quartermaster Research and Development Command, and University of Colorado  
 \*\* Maximum 100% Every Month  
 a Mean Annual for Period

**PERIOD SUMMARY BY YEARS OF MOUNTAIN ENVIRONMENT**  
UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. C-1 Altitude 10,000 Ft. Site Ridgetop Summary for 1953-1964

Year	TEMPERATURE, AIR °F					LONGEST PERIOD OF TEMP. ABOVE 32 °F			TEMPERATURE, SOIL °F					
	Max	Mean	Min	Mean	Mean of	Date Began	Days Duration	Date Ended	5 - 7 In.					
		Daily Max		Daily Min	Daily Max & Min				Max	Mean Weekly Max	Min	Mean Weekly Min	Mean Weekly Max & Min	11-13 In.
1953	75	44	-11	25	35	Jun 7	87	Sep 3	72	46	17	34	40	40
1954	77	46	-13	26	36	Jun 17	64	Aug 19	78	50	6	34	42	41
1955	72	44	-12	25	34	Jun 19	72	Aug 29	74	45	10	32	39	39
1956	73	ND	-20	ND	ND	ND	56	Aug 30	76	50	18	35	42	41
1957	75	44	-13	24	34	Jun 24	75	Sep 7	76	46	17	33	40	39
1958	76	46	-12	24	35	Jul 6	70	Sep 15	76	47	19	34	40	40
1959	75	44	-17	24	34	Jul 9	55	Sep 2	76	46	16	32	39	39
1960	77	46	-25	24	35	Jun 13	64	Aug 16	76	47	13	34	40	39
1961	75	44	-14	24	34	Jun 17	67	Aug 23	72	45	14	33	39	38
1962	76	47	-34	25	36	Jul 15	40	Aug 24	76	48	13	33	41	40
1963	75	47	-33	25	36	Jun 18	97	Sep 23	78	49	10	34	42	41
1964	75	43	-20	22	33	Jun 25	55	Aug 20	74	47	12	32	40	38
Period	77	45	-34	24	35	Jun 24	67	Aug 23	78	47	6	33	40	40
Year	WIND MONTHLY VEL., mph			PRECIP., IN. WATER			SOIL MOISTURE % DRY WT. * MONTH END				RELATIVE HUMIDITY **			
	Max	Min	Mean	MONTH		Total	5-7 In.				11-13 In.			
				Max	Min		Max	Min	Mean	Mean	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min
1953	22	6	11	4.45	.63	26.92	19	4	11	12	90	7	37	64
1954	18	6	10	3.06	.10	15.54	20	5	10	11	88	9	36	62
1955	16	5	11	4.47	.50	21.92	16	7	11	13	89	7	38	64
1956	14	5	9	3.40	.14	20.56	18	4	11	14	ND	ND	ND	ND
1957	18	5	9	8.85	.90	38.54	19	5	12	15	96	6	48	72
1958	14	5	8	3.75	.95	25.96	44	5	16	15	90	5	41	66
1959	16	5	9	3.65	.15	27.63	30	9	16	18	87	2	35	61
1960	13	5	8	3.40	1.05	25.96	18	5	11	13	89	4	40	65
1961	13	4	8	3.84	.90	33.12	18	7	14	16	91	5	37	64
1962	12	5	8	3.60	.65	20.03	18	4	11	16	85	8	34	59
1963	14	4	8	7.13	.70	30.23	17	6	11	13	89	4	36	62
1964	14	5	9	3.15	.50	23.78	ND	ND	ND	ND	90	4	33	62
Period	22	4	9	8.85	.10	25.85	44	4	12	14	89	2	35	64

\* Permanent Wilting Percentage: 5% & 9%      Front Range Ecology Project Supported by U.S. Atomic Energy Commission, U.S. Army Quartermaster Research and Development Command, and University of Colorado  
 \*\* Maximum 100% Every Month  
 a Mean Annual for Period

**PERIOD SUMMARY BY YEARS OF MOUNTAIN ENVIRONMENT**  
UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. D-1 Altitude 12,300 Ft. Site Ridgetop Summary for 1953-1964

Year	TEMPERATURE, AIR °F					LONGEST PERIOD OF TEMP. ABOVE 32 °F			TEMPERATURE, SOIL °F					
	Max	Mean	Min	Mean	Mean of	Date Began	Days Duration	Date Ended	5 - 7 In.					
		Daily Max		Daily Min	Daily Max & Min				Max	Mean Weekly Max	Min	Mean Weekly Min	Mean Weekly Max & Min	11-13 In.
1953	62	32	-15	20	26	Jun 26	45	Aug 9	53	33	6	26	30	30
1954	67	35	-15	21	28	Jun 18	63	Aug 19	56	36	9	26	31	31
1955	61	32	-25	18	25	Jul 4	57	Aug 29	52	33	4	24	28	28
1956	60	ND	-16	ND	ND	Jul 4	45	Aug 17	55	ND	7	ND	ND	ND
1957	61	31	-14	18	24	Jun 24	67	Aug 29	55	32	8	24	28	28
1958	63	33	-13	20	27	Jul 28	26	Aug 23	56	34	6	26	30	30
1959	62	31	-24	18	25	Jul 10	27	Aug 5	55	33	8	25	29	29
1960	63	31	-20	19	25	Jul 6	41	Aug 15	55	34	4	25	29	30
1961	60	30	-20	18	24	Jul 23	38	Aug 31	55	33	5	25	29	28
1962	60	33	-27	20	26	Jul 15	38	Aug 23	55	34	-4	24	29	29
1963	63	34	-34	21	27	Jun 21	72	Sep 1	56	35	1	26	30	30
1964	62	29	-15	17	23	Jun 24	46	Aug 10	56	33	-3	23	28	28
Period	67	32	-34	19	25	Jul 4	47	Aug 20	56	34	-4	25	29	29
Year	WIND MONTHLY VEL., mph			PRECIP., IN. WATER			SOIL MOISTURE % DRY WT. * MONTH END				RELATIVE HUMIDITY **			
	Max	Min	Mean	MONTH		Total	5-7 In.				11-13 In.			
				Max	Min		Max	Min	Mean	Mean	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min
1953	30	9	19	4.00	.75	28.30	40	15	27	17	90	5	53	71
1954	25	10	19	4.50	.65	22.00	56	22	35	21	88	10	43	65
1955	28	8	19	3.80	.40	24.64	ND	ND	ND	ND	92	5	46	69
1956	29	9	18	3.55	.25	20.49	49	19	31	17	ND	ND	ND	ND
1957	31	11	18	5.10	.70	31.35	48	24	37	21	93	11	52	73
1958	27	11	18	3.90	.75	23.90	59	13	31	19	88	9	50	69
1960	28	12	19	2.80	.40	24.85	50	19	36	22	89	6	49	69
1961	27	9	18	2.75	.65	19.43	67	21	39	ND	88	3	47	67
1962	24	10	18	5.90	1.00	32.10	69	21	41	22	90	1	46	68
1963	25	11	19	2.40	.80	19.16	59	13	31	21	86	8	46	66
1964	26	9	17	7.60	.40	32.10	51	12	30	18	90	6	49	69
1964	24	9	19	ND	ND	ND	ND	ND	ND	ND	89	0	44	65
Period	31	8	18	7.60	.25	25.76	69	12	34	20	89	0	48	68

\* Permanent Wilting Percentage: 10% & 4%      Front Range Ecology Project Supported by U.S. Atomic Energy Commission, U.S. Army Quartermaster Research and Development Command, and University of Colorado  
 \*\* Maximum 100% Every Month  
 a Mean Annual for Period





## V. TWELVE-YEAR PERIOD SUMMARIES BY MONTHS

PERIOD SUMMARY BY MONTHS OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. A-1 Altitude 7,200 Ft. Site Ridgetop Summary for 1953-1964

Month	TEMPERATURE, AIR °F						Average No Days Min Temp Above 32° F	TEMPERATURE, SOIL °F						
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	Max		Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	5-7 In.		11-13 In.
												Max	Mean Weekly Max	Min
January	63	40(A)	-29	18(A)	29	3(A)	34	31	19	27	29	31		
February	70	42(A)	-17	20(A)	30(A)	4(A)	58	32	23	29	31	31		
March	71	44(A)	-8	21(A)	33	4(A)	52	44	14	32	34	33		
April	81	54(A)	6	30(A)	42	11(A)	65	51	32	36	46	41		
May	88	64(A)	13	40(A)	52	26(A)	70	62	35	44	53	50		
June	100	75(A)	27	49(A)	62	30(A)	82	73	44	52	63	59		
July	99	83	41	55	69	31	86	78	54	59	69	65		
August	96	81	36	54	67	31	88	77	50	58	67	65		
September	93	72	17	46	59	28	80	70	42	52	61	60		
October	87	62	12	38	50	22	71	58	33	43	51	51		
November	69	48	-8	26	37	9	53	41	26	35	38	40		
December	64	43	-12	22	33	6	41	34	19	36	32	34		
Period	100	59	-29	35	47	205	88	54	14	42	48	47		

Month	WIND MONTHLY VEL., mph			PRECIPITATION MONTHLY IN. WATER			SOIL MOISTURE % DRY WT. * MONTH END				RELATIVE HUMIDITY**			
	Max	Min	Mean	Max	Min	Mean	5-7 In.		11-13 In.		Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min
							Max	Min	Mean	Mean				
January	11	5	7	1.85	.40	.92	38(A)	3(B)	12(A)	7(B)	75(A)	6(A)	35(A)	55(A)
February	10	5	7	2.30	.20	1.15	25(A)	5(A)	12(A)	8(B)	82(A)	2(A)	38(A)	60(A)
March	9	3	6	3.65	.90	2.06	15	10	12	11(A)	85(A)	5(A)	39(A)	62(A)
April	8	4	6	8.10	4.0	2.38	24(A)	6(A)	12(A)	13(A)	82(A)	6(A)	36(A)	58(A)
May	7	4	5	8.35	.90	3.43	16(A)	3(A)	11(A)	10(A)	84(A)	1(A)	37(A)	60(A)
June	7	5	6	4.69	.25	2.13	8(A)	3(A)	7(A)	7(A)	80(A)	4(A)	32(A)	56(A)
July	6	5	6	4.95	1.18	2.17	24(A)	2(A)	7(A)	7(A)	81	8	30	61
August	7	5	6	3.66	.60	1.91	10(A)	3(A)	6(A)	5(A)	80	4	30	55
September	7	4	6	5.16	.00	1.59	13(C)	2(C)	5(C)	5(C)	73	5	31	52
October	7	4	6	2.61	.15	1.12	12(A)	3(A)	6(A)	6(A)	71	3	32	51
November	9	6	7	1.95	.77	1.27	13(B)	5(B)	9(C)	9(D)	76	3	34	55
December	11	5	8	1.90	.10	.84	14(C)	4	8(B)	8(C)	77	3	34	56
Period	11	3	6	8.35	.00	20.96	38	2	9	8	79	1	34	56

\* Permanent Wilting Percentage: 4% & 4% (A) 11 yrs (B) 10 yrs (C) 9 yrs (D) 8 yrs  
 \*\* Maximum 100% Every Month  
 a Mean Annual for Period  
 Front Range Ecology Project Supported By U.S. Atomic Energy Commission, U.S. Army Quartermaster Research and Development Command, and University of Colorado

PERIOD SUMMARY BY MONTHS OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. B-1 Altitude 8,500 Ft. Site Ridgetop Summary for 1953-1964

Month	TEMPERATURE, AIR °F						Average No Days Min Temp Above 32° F	TEMPERATURE, SOIL °F						
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min	Max		Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	5-7 In.		11-13 In.
												Max	Mean Weekly Max	Min
January	60	35(A)	-32	14(A)	22(A)	1(B)	35	28	16	24	26	27		
February	61	37(A)	-24	16(A)	26(A)	1(A)	33	29	8	25	27	28		
March	67	40(A)	-11	17(A)	28(A)	1(A)	49	32	10	28	30	30		
April	73	48(A)	0	25(A)	37(A)	7(A)	56	41	30	33	38	36		
May	84	59(A)	9	35(A)	47(A)	19	66	55	32	39	47	45		
June	94	70(A)	23	45(A)	57(A)	29	75	67	38	50	58	56		
July	92	77	35	51	64	31	78	72	50	56	64	62		
August	91	74	31	49	62	31	79	70	50	55	63	61		
September	86	70	16	41	55	25	74	63	38	49	56	55		
October	78	58	10	34	47	18	58	49	32	39	45	46		
November	65	44	-10	22	38	4	40	35	26	31	33	35		
December	60	38	-15	18	28	2	34	30	19	26	28	30		
Period	94	54	-32	30	42	169	79	48	8	38	43	42		

Month	WIND MONTHLY VEL., mph			PRECIPITATION MONTHLY IN. WATER			SOIL MOISTURE % DRY WT. * MONTH END				RELATIVE HUMIDITY**			
	Max	Min	Mean	Max	Min	Mean	5-7 In.		11-13 In.		Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min
							Max	Min	Mean	Mean				
January	14	6	9	1.85	.20	.98	29(A)	3(A)	10(A)	10(B)	79(A)	8(A)	37(A)	58(A)
February	11	7	8	2.35	.45	1.31	17(B)	4(B)	10(C)	9(B)	86(A)	10(A)	39(A)	63(A)
March	11(A)	4(A)	8	3.10	.76	1.99	34	6	16	10(B)	88(A)	12(A)	39(A)	64(A)
April	11	5	8	8.25	.30	2.46	16	11(A)	14(A)	13(B)	84(A)	3(A)	36(A)	60(A)
May	7	5	6	6.45	.87	3.24	17(B)	6(B)	12(B)	12(B)	87(A)	5(A)	38(A)	62(A)
June	6(A)	4(A)	5	4.50	.20	1.83	16	3	7(A)	10(A)	83(A)	5(A)	33(A)	58(A)
July	5	4	5	4.09	1.04	2.41	17(A)	4(A)	9(A)	9(A)	83(A)	9(A)	32(A)	57(A)
August	6	4	5	4.54	.60	2.28	11(A)	4(A)	17(A)	8(A)	83(A)	6(A)	35(A)	58(A)
September	6(A)	4(A)	5	4.20	.01	1.47	10(D)	3(D)	7(C)	7(C)	76(A)	4(A)	31(A)	54(A)
October	7	4	5	2.48	.20	1.18	15(B)	4(B)	9(A)	8(A)	74(A)	5(A)	32(A)	54(A)
November	11	6	8	1.70	.50	1.18	19(D)	3(D)	10(C)	8(D)	76	6	34	55
December	13	6	9	2.15	.10	.95	17(C)	2(C)	9(C)	6(E)	78	3	34	57
Period	14	4	7	8.25	.01	21.28	34	2	11	9	82	3	35	58

\* Permanent Wilting Percentage: 4% & 4% (A) 11 years (B) 10 years (C) 9 years (D) 8 years (E) 7 years  
 \*\* Maximum 100% Every Month  
 a Mean Annual for Period  
 Front Range Ecology Project Supported By U.S. Atomic Energy Commission, U.S. Army Quartermaster Research and Development Command, and University of Colorado

PERIOD SUMMARY BY MONTHS OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. C-1 Altitude 10,090 Ft. Site Ridgetop Summary for 1953-1954

12/62

Month	TEMPERATURE, AIR °F					Average No Days Temp Above 32 °F	TEMPERATURE, SOIL °F					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5-7 In.			11-13 In.		
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	54	27(A)	-34	10(A)	19	0	32	28	9	20	24	26
February	52	28(A)	-25	11(A)	19	2	36	29	6	21	25	26
March	54	31(A)	-19	12(A)	21	2	48	32	14	23	27	28
April	67	39(A)	-1	20(A)	30	2	55	40	25	28	35	32
May	69	51(A)	5	26(A)	39	7	65	52	31	34	43	39
June	77	61(A)	12	35(A)	48	23	78	65	34	43	54	50
July	77	67	28	40	54	30	78	72	44	50	61	57
August	77	65	27	40	53	30	78	70	43	49	59	56
September	76	59	7	34	46	16	72	63	34	44	53	52
October	65	50	4	26	39	8	60	47	27	37	44	43
November	55	36	-17	16	27	1	49	36	20	29	33	35
December	55	30	-15	14	22	0	37	30	15	23	27	30
Period	77	45	-34	21	35	11	78	47	6	33	40	40

Month	WIND MONTHLY VEL., mph			PRECIPITATION MONTHLY IN. WATER			SOIL MOISTURE % DRY WT. * MONTH END				RELATIVE HUMIDITY**			
	Max	Min	Mean	Max	Min	Mean	5-7 In.		11-13 In.		Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min
							Max	Min	Mean	Mean				
January	22	11	14	3.30	.50	1.23	20	4	11	12(B)	86(A)	4(A)	44(A)	65(A)
February	17	9	12	2.70	.40	1.74	44(D)	6(D)	14(D)	10(E)	91(A)	10(A)	44(A)	68(A)
March	15	6	11	3.55	.50	2.24	20(A)	6(A)	13(A)	14(B)	92(A)	8(A)	43(A)	67(A)
April	12	6	9	8.85	.55	3.06	20(A)	6(A)	15(A)	16(A)	88(A)	9(A)	39(A)	63(A)
May	8	6	8	7.30	1.45	3.32	20(A)	11(A)	15(C)	18	93(A)	5(A)	36(A)	63(A)
June	8	5	5	3.70	1.10	2.15	30	7	12	15	95(A)	6(A)	33(A)	64(A)
July	6	5	5	3.84	1.42	2.64	18(A)	5(A)	12(A)	14(A)	96	8	35	66
August	6	4	5	7.13	.65	2.69	19(B)	4(B)	11(B)	14(B)	94	8	35	65
September	8	4	6	5.18	.14	1.98	17(B)	4(B)	10(B)	12(B)	89	6	33	60
October	10	6	8	2.50	.20	1.10	15(A)	6(A)	11(A)	14(B)	83	4	36	58
November	16	9	12	3.05	.95	1.56	18(B)	6(B)	12(B)	16(D)	81	2	36	59
December	19	10	14	3.60	.15	1.65	16(B)	5(B)	10(B)	12(D)	87	4	41	64
Period	22	4	7	8.85	10	25.86	44	4	12	14	90	2	38	64

\* Permanent Wilting Percentage: 5% & 9% (A) 11 yrs (B) 10 yrs (C) 9 yrs (D) 8 yrs (E) 5 yrs  
 \*\* Maximum 100% Every Month  
 a Mean Annual for Period

PERIOD SUMMARY BY MONTHS OF MOUNTAIN ENVIRONMENT

UNIVERSITY OF COLORADO - INSTITUTE OF ARCTIC AND ALPINE RESEARCH

Station No. D-1 Altitude 12,300 Ft. Site Ridgetop Summary for 1953-1964

12/62

Month	TEMPERATURE, AIR °F					Average No Days Temp Above 32 °F	TEMPERATURE, SOIL °F					
	Max	Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min		5-7 In.			11-13 In.		
							Max	Mean Weekly Max	Min	Mean Weekly Min	Mean of Weekly Max & Min	Mean of Weekly Max & Min
January	39	14(A)	-34	3(A)	9(A)	0	25	18(A)	4	9(A)	14	15
February	41	14(A)	-25	4(A)	8(A)	0	26	19(A)	4	11(A)	15	16
March	41	17(A)	-17	5(A)	11(A)	0	29	21(B)	-4	12(B)	17(A)	17(A)
April	49	25(B)	-8	13(A)	19(A)	0	33	26(A)	8	19(A)	23	24
May	56	38(A)	5	23(A)	31(A)	3	43	32(A)	16	29(A)	32	31
June	67	48(A)	11	33(A)	41(A)	15	53	45(A)	25	34(A)	40	38
July	65	54	27	40	47	29	56	52	34	42	47	45
August	63	52	19	38	45	28	56	52(A)	35	41	46	46(A)
September	61	46	7	33	39	12	54	47	32	37	40	41
October	51	34(A)	-3	23(A)	30	3(B)	49	38	26	32	44	35
November	44	22	-21	11	17	0	33	28	10	21	24	27
December	40	17	-20	6	11	0	26	22	-3	13	17	19
Period	67	32	-34	19	26	90	56	33	-4	25	30	30

Month	WIND MONTHLY VEL., mph			PRECIPITATION MONTHLY IN. WATER			SOIL MOISTURE % DRY WT. * MONTH END				RELATIVE HUMIDITY**			
	Max	Min	Mean	Max	Min	Mean	5-7 In.		11-13 In.		Mean Daily Max	Min	Mean Daily Min	Mean of Daily Max & Min
							Max	Min	Mean	Mean				
January	30	20	25	3.85	.80	2.13(A)	44(C)	21(C)	32(C)	14(F)	91(A)	3(A)	57(A)	74(A)
February	28	21	24	3.80	.80	1.88(A)	42(E)	16(E)	36(E)	19(H)	96(A)	11(A)	62(A)	79(A)
March	24	16	21	3.15	.65	2.07(A)	67(A)	19(A)	38(A)	19(E)	97(B)	14(B)	62(B)	79(B)
April	22	17	19	4.80	.85	2.28(A)	65	21	40	22(D)	92(B)	8(B)	56(B)	74(B)
May	18	12	14	5.10	1.10	2.58	59(A)	12(A)	36(A)	19(C)	91(A)	8(A)	44(A)	68(A)
June	17	11	13	4.50	.80	2.17	62(A)	20(A)	37(A)	22(B)	85(A)	5(A)	34(A)	60(A)
July	13	9	10	4.50	1.55	2.74	41(B)	16(B)	29(B)	16(B)	87	10	38	63
August	16	8	11	7.80	.80	3.00	69(B)	13(B)	31(B)	17(B)	88	8	40	64
September	19	11	15	5.90	.25	1.97	51(C)	13(C)	30(C)	16(D)	80	1	38	57
October	22	15	19	2.45	.30	1.13	51(C)	19(C)	35(C)	19(D)	81(A)	4(A)	41(A)	61(A)
November	28	12	24	3.10	.60	1.49	43(C)	18(C)	31(C)	23(C)	86(A)	0(A)	49(A)	69(A)
December	31	21	26	4.30	.40	1.78	53(B)	15(B)	34(B)	20(C)	92(A)	0(A)	53(A)	73(A)
Period	31	8	18	5.90	25	25.22	69	12	34	19	89	0	48	68

\* Permanent Wilting Percentage: 10% & 4% (A) 11 yrs (B) 10 yrs (C) 9 yrs (D) 8 yrs (E) 7 yrs (F) 6 yrs (G) 5 yrs (H) 4 yrs  
 \*\* Maximum 100% Every Month  
 a Mean Annual for Period



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