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Assistant Director for Operations
Attention: Chief, Foreign Documents Branch

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Chief, Dissemination Branch

Return of documents loaned to Dissemination Branch for reproduction

Reference: Memorandum from Chief, FDB to OCD dated 17 September 1947.

1. Returned herewith is one copy of Documents Branch Translation No. 64 entitled "East Asia Meteorological Data: Vol.IV, Siberia" and the original document from which the translation was made.

2. After reviewing requirements for and previous distribution of the data, it has been determined by the Dissemination Branch that the need does not warrant the cost and labor of reproducing further copies of the translation and the necessary tables appearing in the original document.

FOR THE ASSISTANT DIRECTOR FOR COLLECTION AND DISSEMINATION:

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[redacted]

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DATE 6/3/82 REVIEWER: 0[illegible]169

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Doc No 273408 Complete Translation : [redacted]

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(Dup. 30455A)

East Asia Meteorological Data: Vol IV, Siberia

The East Asia Research ~~Laboratory~~ Group JANUARY 1942

Special Publication of the 7th ~~Investigation~~ Survey Commission CONFIDENTIAL

CPYRGHT

Foreword

The task of collecting and editing data on the ~~meteorology~~ weather of Eastern Asia was entrusted to the 7th ~~Investigation~~ Survey Commission of the East Asia Research ~~Laboratory~~ Group, and was carried out at the Central Meteorological Observatory. The research was begun in 1939 and has at last been completed, and the results published. The data consists of six volumes, each dealing with a separate area. The requisite meteorological information from each area has been recorded with the greatest possible accuracy, and we believe therefore that the data will prove useful in meteorological work for all areas covered.

During the course of this research, on 20 June 1940 the data and ~~parts of~~ the manuscript ~~already~~ completed were unfortunately destroyed in a fire caused by lightning. Subsequently, the personnel of the Statistics Section of the Central Meteorological Observatory, with the magnificent support of the members of the 7th ~~Investigation~~ Survey Commission and many of the Secretaries, worked diligently to restore the lost material, and completed the work about a year later.

The foreword has been written to place on record the circumstances of the production of this volume.

June 1941

OKADA Takematsu, Chief

The Central Meteorological Observatory

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Preface

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This volume of East Asia Meteorological Data deals with Siberia and is divided into three parts. The first part gives the average figures for successive years and is to be used as a General Survey of Siberian weather. The second part gives the actual figures for each month and year. The third part is in the nature of an annex, with notes and maps.

Weather observations in Siberia seem to have been fairly complete in recent years, but owing to the particular conditions of the country it has been absolutely impossible to obtain any recent reports. Fortunately there was a collection of old reports available at the Central Meteorological Observatory and a large amount of material has been taken from the sources listed below:

Annales de l'Observatoire Physique Central Nicolas I, II 1895 - 1905 (Annals of the Central Geographical Observatory of Nicholas I and II, 1895 - 1905) This covers a period of 11 years. The surveys vary in length, some of them covering only 2 or 3 years. Observations were made three times a day, at 0700, 1300 and 2100.

Much of the atmospheric pressure and temperature data was taken from the following tables:

Klima der Union der Sozialistischen Sowjet-Republiken; Teil II Lieferung I. Luftdruck in der USSR nach Monatsmitteln von A. Kaminsky (Climate of the USSR, Part II, Section I. Average MONTHLY Atmospheric Pressure figures for USSR, by A. Kaminsky)

Meteorological Tables for Foreign Countries, Continued, Central Meteorological Observatory.

Atmospheric pressure is expressed in ~~degrees centigrade~~ millimeters of mercury and is ~~lowest~~ corrected 0° Centigrade and Latitude 45° at [illegible]).

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Temperature is given ~~on the Celsius Scale~~ in centigrades, ~~lowest~~ corrected to the International Temperature Scale (~~the Centigrade or~~ Celsius Hydrogen Thermometer).

Vapor pressure is shown in millimeters; humidity ~~in relation to saturation~~ is shown by percentage of saturation.

Sky cover is expressed in figures: 10 being complete cover, 0 the total absence of cloud, and 1 to 9 the varying quantities between.

Wind velocity is given in meters per second, and frequency of direction is indicated by the 8 points of the compass and percentage of total observations. Days on which the wind was 1 meter per second or less are termed "calm."

Amount of precipitation is shown in millimeters and the reading taken at 0700 hours gives the rainfall for the previous day.

The average monthly figures for atmospheric pressure, temperature, vapor pressure, humidity, sky cover and wind velocity are the averages of the daily readings taken at 0700 ~~hours~~, 1300 ~~hours~~ and 2100 ~~hours~~.

Maximum and minimum atmospheric pressures for the month are the maximum and minimum readings taken at any of the three times noted above. The highest maximum temperature is the highest temperature ~~observed~~ recorded at any of the three ~~hours of~~ [daily] observations. The lowest minimum temperature is the lowest thermometer reading during the month, and the average minimum temperature is the average of the lowest daily readings.

"Number of days with minimum temperature equal to or less than zero" is the number of days when the temperature was 0° centigrade or below, and corresponds to the number of days of freezing.

"Number of days with maximum temperature equal to or less than zero" is the number of days when none of the three temperature readings was above 0° centigrade, and corresponds to the number of days with no thaw.

Days of fine weather are those on which the total of the three computations of sky cover in one day does not exceed 5. Days of cloud are those on which the

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total is not less than 25.

Days of precipitation (including rain, sleet, hail and snow), days of snow and days of hail are those on which there was a fall of 0.1 mm or more, the reading being taken at 0700 the following morning. A fall of less than 0.1 mm is disregarded.

Days of fog are those on which fog was observed.

Days of thunder are those on which thunder occurred. The sign ⚡ indicates lightning accompanying local thunder and the sign T indicates distant thunder. When there is local lightening and distant thunder on the same day the sign ⚡ only will be used and the distant thunder disregarded.

Humidity and vapor pressure are measured on a dry and wet bulb thermometer when the wet bulb temperature is 0.5° C or more. If it is less than 0.5° C they are calculated with a hair hygrometer in conjunction with temperature.

Evaporation is shown in millimeters and is measured in the shade.

Sunshine is given in hours and the figure represents the total number of hours per month during which the sun shone undimmed by cloud or mist. ~~The rate of sunshine~~ Insolation is the ~~percentage of sun experienced compared to~~ the amount of time the sun shines expressed as the percent of the potential number of hours of sunshine. This potential is not computed astronomically but varies according to the terrain and characteristics of the locality.

Snow cover is shown in centimeters; ~~and~~ the figures give the average depth for each ten-day period. The maximum snow cover is the highest figure of the above ten-day averages.

The last day of freezing in the first half of the year (January to June) and the first day of freezing in the latter half of the year (July to December) are the last and first days on which the minimum temperature falls to 0°C or below, read on a thermometer within a thermoscreen.

The last and first days of snow are the last and first days during the

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first and latter half of the year on which there was snowfall.

The freezing ~~to~~ and thawing of rivers are calculated for the principal bodies of water ~~streams~~ emptying into the Pacific and Arctic Oceans.

The day of freezing of a river is the day when ice is first observed filling the river from bank to bank, regardless of thickness, or the day in which ice ceases to flow down the stream. The day of thaw is the day when the ice is first broken up or when it begins to move.

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East Asia Meteorological Data

Vol IV Siberia

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Number of Days of Distant Thunder ✓ 81

Number of Days of Fine Weather ✓ 84

Number of Days of Cloudy Weather ✓ 88

Number of Days of Fog ✓ 91

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Key to Map 1 (following p 3 of List of Contents)

a. Map of ~~Positions~~ Locations of ~~Meteorological Observation~~ Weather Stations, No 1.

b. The numbers correspond to those of the first list of observation stations.

c. Arctic Ocean

d. Volga River

e. Ob River

f. Yenisei River

g. Yana River

h. Indigirka River

i. Kolyma River

j. Bering Sea

k. Lena River

l. Sea of Okhotsk

m. ~~Heilung~~ Amur River

n. Ussuri River

o. Sea of Japan

p. Yellow Sea

q. Tarim River

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Key to Map 2 (following p 3 of List of Contents)

a. Map of Location of Weather Stations No 2.

b. The numbers correspond to those given in the second, third and fourth lists of Weather stations. Those of the third list are in heavy type and those of the fourth in slanting figures.

(c to q same as for Map I) Refer to: Key to Map 1 on the preceding page.

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PART I

AVERAGE FIGURES FOR SUCCESSIVE YEARS

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Mask for tables on pages 2/3, 4/5, 6/7.

List of ~~Meteorological Observation~~ Weather Stations No 1
(GIVING NUMBER of YEARS for which STATISTICS ARE AVAILABLE)

3 Latitude

4 Longitude

5 Elevation

6 Mean Atmospheric Pressure

7 Atmospheric Pressure at Sea Level

8 Maximum Atmospheric Pressure

9 MINIMUM ATMOSPHERIC PRESSURE

10 Mean Temperature

11 Maximum Temperature

12 Minimum Temperature

13 Mean Minimum Temperature

14 Vapor Pressure

15 Humidity

16 Sky Cover

17 Wind Velocity

18 Prevailing Wind Direction and Frequency Percentage

19 Precipitation

20 Maximum Precipitation on a Single Day

21 Number of Days of Precipitation

22 Number of Days of Snow

23 Number of Days of Hail

24 Number of Days of Local Lightning

25 Number of Days of Distant Thunder

TOP

BOTTOM

TOP

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26	No of Days Clear (~~Cloud Amt~~ Sky cover 0.0-0.2)
27	No of Days Overcast
28	No of Days of Fog
29	No of Days of Gale
30	No of Days with Maximum Temperature equal to or less than Zero ~~or less~~
31	No of Days with Minimum Temperature equal to or less than Zero ~~or less~~

TOP

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(Place Names p 2)

Tobolsk Okrug (Omsk Oblast)

1. Berezovo
2. Yurginskoye
3. Kondinskoye
4. Kurgan
5. Obdorsk
6. Padun
7. Samarovo
8. Satyzhinskoye
9. Surgut
10. Staro-Sidorovo
11. Tara
12. Tyumen
13. Tobolsk
14. Tobolsk Agricultural School
15. Turinsk
16. Zavodoukovskoye

Tomsk Oblast

17. Andovinsky Priisk
18. Barnaul
19. Belgachskoye Zimovye
20. Biysk
21. Bolshe-Nikolskiy Priisk
22. Borovya Ozera
23. Burlinskoye Ozero
24. Itkulskiy Zavod
25. Kainsk
26. Kainsk School
27. Kainsk Railway Station
28. Kamen
29. Karagatskiy Forpost
30. Kolchuginskoye Mines
31. Kolyban'
32. Kuchuk
33. Kuznetsk
34. Loktevskiy Zavod
35. Mariinsk
36. Narym
37. Neodzhidanniyy Priisk
38. Pravaya Ob'
39. Proroko-Ilimskiy Priisk
40. Salair
41. Spasskaya Rezidentsiya
42. Tayga
43. Tatarska
44. Chulym
45. Tyumentsevskoye
46. Tisul
47. Tomsk
48. Tomsk Agricultural School
49. Taurak
50. Vysha-Subrasskiy Priisk
51. Zmeinogorsk
52. Zyranovskiy Rudnik

Semipalatinsk Oblast

53. Altayskaya
54. Yamyshyevskoye
55. Kokpetky
56. Karkaralinsk
57. Ust-Kamenogorsk
58. Uzon-Bulak
59. Semipalatinsk
60. Zaysan

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(Place Names p 4)

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Akmolinsk Oblast

61. Akmolinsk
62. Omsk

Yeniseysk Oblast

63. Abakanskiy Zavod
64. Achinsk
65. Yeniseysk
66. Yermakovksoye
67. Kamenka
68. Kansk
69. Kazachinskiy
70. Kezhma
71. Konkordievskiy Priisk
72. Krasnoyarsk
73. Minusinsk
74. Novo-Mariinskiy Priisk
75. Nazimovo
76. Tolstyy-Nos
77. Turkhansk
78. Troitskoye

Yakut ASSR

79. Blagoveshchenskiy Priisk
80. Yenyuka-Olekma
81. Yakutsk
82. Kazach'ye (Ust-Yansk)
83. Markhinskiy Ulus
84. Markhinskoye
85. Nizhne-Kolymsk
86. Olekminsk
87. Ust'Maya
88. Rodchevo
89. Russkoye Ust'ye
90. Suntar
91. Sredne-Kolymsk
92. Tikhono-Zadonskiy Priisk
93. Verkhoyansk
94. Vilyuysk

Irkutsk Oblast

95. Beznosovo
96. Biryusa
97. Bratskiy Ostrog
98. Dushkachan
99. Bol'shoye Goloutsnaye
100. Ilimsk
101. Irkutsk
102. Zherdovskaya Agricultural School
103. Kharbatovskoye
104. Kirensk
105. Kultuk
106. Listvinichnoye
107. Mondy
108. Nizhne-Udinsk
109. Nikolayevskiy Zavod
110. Olkhon
111. Omoloy
112. Usolye
113. Ust'Kutskiy Zavod
114. Peschnaya Bukhta
115. Tayshet
116. Tulun
117. Tunka
118. Zalari
119. Verkhnaya Zima'

etc

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(Place Name Index)

Chita Oblast and
Buryat Mongolian ASSR

120. Akatuy
121. Aksha
122. Barguzin
123. Bol'shov Ushkaniy (Island)
124. Borzya
125. Dagarskiy Lighthouse
126. Doge
127. Dono
128. Goryachinsk
129. Yamarovka
130. Kabansk
131. Kharauz
132. Khilok
133. Mangut
134. Mogzon
135. Mysovsk
136. Nerchinsk
137. Nerchinskiy Zavod
138. Oimur
139. Olovyannaya
140. ~~Olovyannaya~~ TANKHOY
141. Petrovskiy Zavod
142. Stretensk
143. Chita
144. Turinskiy Lighthouse
145. Troitskosavsk
146. (Verkhnyaya) Mishikha
147. Verkhne-Udinsk

Maritime ~~(Primorskiy)~~ Kray

148. Ayan
149. Gizhiga
150. Grodekovo
151. Khabarovsk
152. Markovo-na-Anadyre
153. Nikolayevskiy Lighthouse
154. Nikolskoye (Bering Is)
155. Nikolsk Ussuriyskiy
156. Nikolayevsk-na-Amure
157. Novo Marienskiy Post
158. Okhotsk
159. Pavlinovka
160. Petropavlovsk Lighthouse
161. Posyet
162. Povorotnyy Lighthouse
163. Preobrazhenskoye
164. Rukovskoye
165. Skryplev Lighthouse
166. Vyazemskaya
167. Vladimirskiy Post
168. Vladivostok Observatory
169. Vladivostok Port
170. Vladivostok Station

Amur Oblast

171. Blagoveshchensk
172. Dzhalinda
173. Yekaterino-Nikolsk
174. Sofiskiy Priisk
175. Chernyayevo

Sakhalin

176. Alexandrovskiy Post
177. Galkino Vrazhskoye (OCHIRI)
178. Korsakovskiy Post (ODOMARI)
179. Kririon Lighthouse ~~(Korsakov)~~
180. Onor

End

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[redacted] List of ~~Not Observation~~ Weather Stations [redacted] (Atmospheric Pressure Only)

1. Place Name	2. Lat N	3 Long E	4 Elevation	Number of Years Covered by Statistics 5	Mean Atmospheric Pressure 6	Atmospheric Pressure at Sea Level

on Pages 8 and 9

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(Place Names page 8)

1. Marre-Sale
2. Dickson (Island)
3. Ust Yeniseyskiy Post
4. Dudinka
5. Bulun
6. Monastyrskoye
7. Verkhne Imbatskoe
8. Bogoslovsk
9. Verkhotur'ye
10. Blagodatka
11. Nizhniy'Tagil
12. Sverdlovsky (Yekaterinburg)
13. Chelyabinsk
14. Irbit
15. Shadrinsk
16. Novosibirsk Bolshoye Krivoshchekovo
17. Rybnoye
18. Kotelnikovskiy Lighthouse
19. Klyuchevskaya
20. Troitsk
21. Konstanaiskaya Koniushnya ~~(Kustany?)~~
22. Urkach
23. Sarymbet
24. Kokchetav
25. Atbasar
26. Parlodar
27. Kupino
28. Borovskoye
29. Kolchuginskoye
30. Karitui
31. Perevalnaya
32. Pokrovka
33. Tygan-Urkan
34. Magdagachi
35. Pikan-Zeya
36. Buomnaak
37. Mazanovo
38. Gosh
39. Pronge
40. Bolsheretsk
41. Turgay
42. Spasskiy Zavod
43. Urga (Ulan-Bator)
44. Mikhailovskoye
45. Tarbagatay
46. Zhorkierskiy Lighthouse
47. Kizil-Djar
48. Aralskoye More
49. Kazalinsk
50. Kzyl-Orda (Perovsk)
51. Turkestan (Dzambui)
52. Aulie-Ata
53. Frunze (Pishpek)
54. Alma-Ata (Verny)
55. Przhevalsk
56. Kopal
57. Koktal (Borokhudzir)
58. Ti-Hua (Urumchi)

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(Place [illegible])

59. Lu-k'o-ch'in (Linkchun)
60. Yergeneyka
61. Anuchino
62. Gamovskiy Lighthouse
63. Askoldskiy Lighthouse
64. Bikin
65. Muravyev-Amurskiy
66. Post Olga
67. Krasnovodsk
68. Cheleken Island
69. Uzun-Ada
70. Chikishlyar
71. Kizil-Arvat
72. Ashkhabad
73. Turtkul
74. Bayram-Ali
75. Sultan-Bend
76. Chardzhov (Leninsk-Turkmenskiy)
77. Bukhara
78. Samarkand
79. Kerki
80. Termez
81. Jizak
82. Tashkent
83. Leninabad (Khodzhent)
84. Namangan
85. Margelan
86. Andizhan
87. Irkeshtan
88. Pamirskiy Post
89. Khorog
90. Naryn

End

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[redacted] List of ~~[illegible]~~ Weather Stations [redacted] (Temperature Only)

(Mask for Tables on pp 10 and 11)

1. Place Names	2. Latitude	3. Longitude	4 Elevation	5 Dates Covered by Statistics	6 Number of Years for Which Statistics Are Available

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(Place Names p 10)

1. Yugorskiy Shar
2. Marre-Sale
3. Dickson Island
4. Khatanskoye
5. Bulun
6. Petrun (Bolbon)
7. Verkhne Imbatskoye
8. Rodchevo
9. Cheremkoyevskiy Yurty
10. Lar'yat
11. Noviy Stan
12. Yur'yeva
13. El'gyay
14. Ola
15. Nayakhan
16. Petrovskiy Poselok
17. Shipits~~ko~~INSKOYE
18. Molchanovo
19. Uzhur
20. Tanguy
21. Unakha
22. Urkach
23. Chola~~ч~~KHai
24. Salymbet
25. Kokchetav
26. Mikhailovskiy Poselok
27. Porovskoye
28. Balandino
29. Tolbukskaya
30. Okinskiy Stan
31. Ukyr
32. Bolshoye Amalatskoye
33. Sugaluy
34. Gorobitsa
35. Tapurgary
36. Pokrovka
37. Erofei Pavlovich
38. Urusha
39. Reinovo
40. Rukhlovo (Skovorodino)
41. Tygan-Urkan
42. Taldan
43. Ulanga
44. Pikan (Zeya)
45. Dambuki
46. Gondatti (Shimanovskaya)
47. Kulbterin Lug
48. ~~Bromnaakh~~ BOMHAK

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(Place Names p 11)

49. Mazanovo
50. Gosh
51. Otradnoye
52. Ekimchan
53. Kerbi
54. Tsimmermanovskaya
55. Mariinskoye
56. Pronge
57. Langer
58. Turgay
59. Troitskiy Poselok
60. Zaysan
61. Kosh-Agach
62. Innokenti'yevskoye
63. Amurskoye
64. Mikhaylovskoye
65. Tarbogataya
66. Arkhara
67. Paykan
68. Sovietskaya Gavan
69. Kamen Rybolov
70. Askold Lighthouse
71. Spassk-Dal'niy
72. Yevgenievka
73. Bikin
74. Post Olga

Kamchatka Oblast

75. Bolsheretsk
76. Tigil'
77. Klyuchi
78. Ust-Kamchatsk

Sakhalin

79. Dzhenkier
80. Timovskaya

End

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Page 2

~~(Precipitation~~ List of ~~Meteorological Observation~~ Weather Stations ~~No 4~~

~~Precipitation~~ ~~Maximum Precipitation in a Single Day, Days of Different Types of Weather Only~~

1.	Place Names
2.	Latitude
3.	Longitude
4	Elevation
5	Precipitation
6	Maximum Precipitation in a Single Day
7	Number of Days of Precipitation
8	Number of Days of Snow
9	Number of Days of Hail
10	Number of Days of Local Lightning
11	Number of Days of Distant Thunder

Number of Years Covered by Statistics Available

(Only the Number of Days of Precipitation, of Maximum Precipitation, and Day of Different Type of Weather

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(Place Names, p 12)

No 4

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Tobolsk Oblast (Cont'd)

1. Alexandrovskoye
2. Dem'yanskoye
3. Bol'sheblinnikova
4. Lipchinskoye
5. Plekhanovo
6. Ust-Ishim
7. Iyevlevo
8. Nitsa
9. Lipchinskoye ~~(sic)~~
10. Pokrovskoye
11. Kurakova ~~(Tyumen?)~~
12. Iushkovo (Tugulym)
13. Dubrovka
14. Sozonovo
15. Malkovskoye
16. Bagandinskoye
17. Yalutorovsk
18. Ishim
19. Tyukalinsk
20. Pustynskoye

Tomsk Oblast

21. Noviystan
22. Zyryanskoye
23. Karpysak
24. Kazandinskiy Poselok
25. Bolshoye Krivoshchekovo
26. Malobragino
27. Beloborodovo

Semipalatinsk Oblast

28. Zhelezinka
29. ~~Beloborodovo~~ LEBYAZHIY POSELOK
30. Bolshoye Vladimirskoye
31. Semiyarskoye
32. Krasnoyarskiy Poselok

Yeniseysk Oblast

33. Leonidovskiy Zavod
34. Verkhne Suetuk
35. Nizhnyaya Bulanka
36. Kuragino

Yakut ASSR

37. Amga

Irkutsk Oblast

38. Shamanskoye
39. Kimiltey
40. Kutulik
41. Novo-Alexandrovskiy Zavod

Chita Oblast and Buryat Mongolian ASSR

42. Gorbitsa

Maritime (Primorskiy) Kray

43. Kozlovskaya

Amur Oblast

44. Pristan
45. Pokrovka
46. Poyarkovo

Sakhalin

47. Lesogorsk (Nayoshi)
48. Seraroki
49. Voskresenskoye

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End

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Note to Publications: All places in List No 1,2 etc not in these tables but the numbers that are in the tables will key correctly to the indicated place-name list.

Mask for tables on pages 13, 14 and 15

Mean Atmospheric Pressure (~~over~~ + 700 mm) (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on page 16 and half page 17 (to *)

Mean Atmospheric Pressure (~~over~~ + 700 mm)

(Place Names According to List of Met Observation Stations No 2)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on half p 17 (from *) p 18 and half p 19 (to *)

Atmospheric Pressure at Sea Level (~~over~~ + 700 mm)

(Place Names According to List of Met Observation Stations No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on half p 19 (from *) and p 20

Atmospheric Pressure at Sea Level (~~over~~ + 700 mm)

(Place Names According to List of Met Observation Stations No 2)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on pages 21, 22, and half p 23 (to +)

~~Highest~~ Maximum Atmospheric Pressure (~~over~~ + 700 mm) (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on half p 23 (from +) and pp 24 and 25

~~Lowest~~ Minimum Atmospheric Pressure (~~over~~ + 700 mm) (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

This will hold true for all the following tables.

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Mask for tables on pp 26, 27, 28 and part 29 (to ✱)

Average Temperatures ~~(Degrees Centigrade)~~ (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on part p 29 (from ✱) and p 30

Average Temperatures ~~(Degrees Centigrade)~~ (Place Names: List No 3)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on pages 31, 32, and 33

Maximum Temperatures ~~(Degrees Centigrade)~~ (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on pages 34, 35, and 36

Minimum Temperatures ~~(Degrees Centigrade)~~ (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on pp 37, 38, and 39

Average Minimum Temperatures ~~(Degrees Centigrade)~~ (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

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Mask for tables on pp 40, 41, and half 42 (to ✗)

Average Vapor Pressure (mm) (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Mask for tables on half p 42 (from ✗) and pp 43 and 44

Average Humidity (%) (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Mask for tables on pp 45, 46, 47 and half 48 (to ✗)

Average ~~Cloud~~ Sky Cover (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Mask for tables on half pp 48 (from ✗) 49, 50 and part 51 (to ✗)

Average Wind Velocity (m/s) (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

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Prevailing Wind Direction and Frequency Percentage (Place Names: List No 1)

Mask for tables on part p 51 (from ✗) 52, 53, and 54

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Precipitation ~~Rainfall~~ (mm) (Place Names: List No 1)

Mask for tables on pp 55, 56, 57 and part 58 (to ✗)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Precipitation (Place Names: List No 4)

Mask for tables on part p 58 (from ✗) and part p 59 (to ✗)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Maximum Precipitation on a Single Day (Place Names: List No 1)

Mask for tables on part p 59 (from ✗) on 60, 61, and 62

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

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Maximum Precipitation on a Single Day (Place Names: List No 4)

Mask for tables on page 63

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Number of Days of Precipitation (Place Names: List No 1)

Mask for tables on 64, 65, 66 and part 67 (to *)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Number of Days of Precipitation (Place Names: List No 4)

Mask for tables on part pp 67 (from *) and part p 68 (to *)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Number of Days of Snow[redacted] (Place Names: List No 1)

Mask for tables on part p 68 (from *) pp 69, 70, 71 and part p 72 (to *)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

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Number of Days of Snow [redacted] (Place Names: List No 4)

Mask for tables on part p 72 (from *) and part p 73 (to *)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Number of Days of Hail (Place Names List No 1)

Mask for tables on p 73 (from *) to page 76.

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Number of Days of Hail (Place Names: List No 4)

Mask for tables on p.77 and part p 78 (to *)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

~~Number of Days of Hail (Place Names: List No 4)~~

~~Mask for tables on p.77 and part p 78 (to *)~~

~~Place Name~~	~~Jan~~	~~Feb~~	~~Mar~~	~~Apr~~	~~May~~	~~Jun~~	~~Jul~~	~~Aug~~	~~Sep~~	~~Oct~~	~~Nov~~	~~Dec~~	~~Entire Year~~

Days of Local Thunder accompanied by Lightning (Place Names List 2)

Mask for tables on p 78 (from *) and part p 80 (to *)

Place Name	~~Jan~~	~~Feb~~	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Entire Year	Local plus distant thunder	Days of thunder accompanied by hail

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Mask for tables on part of p 80 (from *) and part p 81 (to *)

Number of Days of Local Thunder Accompanied by Lightning (Place Names: List No 4)

Place Name	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Entire Year	Local Plus Distant Thunder	Days of Thunder Accompanied by Hail

Mask for tables on part of p 81 (from *) to 82 and part to 83 (to *)

Number of Days of Distant Thunder (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on part of p 83 (from *) and part p 84 (to *)

Number of Days of Distant Thunder (Place Names: List No 4)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on part p 84 (from *) pp 85, 86, and 87

Number of Days of Fine Weather (Place Name: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on part p 78 (from *) pp 79, and part p 80 (to *)

Number of Days of Local Thunder Accompanied by Lightning (Place Names: List No 1)

Place Name	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Entire Year	Local Plus Distant Thunder	Days of Thunder Accompanied by Hail

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Mask for tables on pp 88, 89, 90 and part 91 (to *)

Number of Days of Cloudy Weather (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on part p 91 (from *) pp 92, 93 and part 94 (to *)

Number of Days of Fog (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on part p 94, pp 95, 96 and part 97 (to *)

Number of Days of Gale (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on part p 97 (from *) pp 98, 99, 100

Number of Days with a Maximum Temperature equal to or less than Zero (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Mask for tables on pp 101, 102, and 103

Number of Days with a Minimum Temperature equal to or less than Zero (Place Names: List No 1)

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

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(Mask for tables on p 104 to p 105)

Soil Temperature

Depth	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

a = Latitude -.- Longitude -.- Elevation 15 m etc

(and all similar headings after place names on pp 104 and 105)

(Place Names as follows:)

Page 104:

b Galkino Vrazhskoye

c Khabarovsk

d Alexandrovskiy Post

e Rukovskoye

f Barnaul

g Borovya Ozera

Page 105:

h Yuranovskiy Rudnik

i Tomsk

j Omsk

k Achinsk

l Akatuy

m Chita

n Korsakov

o Tyumen

p Itkulskiy Zavod

q Neodzhidanniyy Priisk

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This Table covers two pages 163

(Mask for pp 106/107)

average ~~Mean~~ Depth of Snow Cover (cm)

Observations Stations	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Years Observed

(Place Names p 106: As in Place Name List No 1 except for following additions:

(After #9, a Surgut,) add b Karmak and c Ishim

(After #68, d Kansk,) add e Verkhne-Sovetouk, f Amga

(After #164, g Rukovskoye,) add h Kozlovskaya

(After #152, i Markovo-na-Anadyre) add j Pavlodar

(Mask for pp 108/109)

Maximum Depth of Snow Cover (cm) by Ten Day averages ~~Periods~~

(Column headings same as pp 106-107. Place Names same as pp 106-107.)

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Evaporation (in shade) mm per Month

(All Place Names on p 110 - List No 1)

Mask for top part of p 110

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Sunshine - hours per month

Mask for middle part of p 110

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

Insolation

~~Sunshine - percentage~~

Mask for bottom part of p 110

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

(Place Names: List No 1)

Mask for tables on pp 112, 113, and 114

First and Last Dates of Freezing ~~(Minimum Temperature Zero)~~ (MINIMUM TEMPERATURE EQUAL TO OR LESS THAN ZERO)				First and Last Dates of Snow		
Region	First date Day Month	Last date Day Month	Period Covered by Statistics	First date Day Month	Last date Day Month	Period Covered by Statistics

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Mask for pp 115-117

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Freezing and Thawing of Rivers

River a	Observation Station b	c Latitude	d Longitude	Thawing e	Freezing f	Disappearance of Ice g	Period of h Observation
On the Pacific Coast of Siberia							
Zeya	1. Berezovka 2. Blagoveshchensk						
Akatuy	3. Akatuy						
Alexandrovska Bolshaya	4. Alexandrovskiy post						
Alexandrovska Malaya	5. Alexandrovskiy post						
Amur	6. Khabarovsk 7. Nikolayevsk 8. Blagoveshchensk						
Anadyr	9. Markovo						
Zavitava	10. Mikhailovka						
Gizhiga	11. Gizhinsk						
Ingoda	12. Chita						
Kukhtuy	13. Okhotsk						
Nayba	14. Galkino Vrasskoye						
Nercha	15. Nerchinsk						
Lagernaya	16. Petropavlovak Lighthouse						
Onon	17. Aksha						
Onor	18. Onor						
Shilka	19. Nerchinsk 20. Stretensk						
Suputenka	21. Nikolsk Ussuriyskiy						
Takaye	22. Galkino Vrasskoye						
Tom' and Zeya	23. Vasilyevskoye						
Unda	24. Undinskaya						
Ussuri	25. Khabarovsk 26. Kozlovskaya						

Publication

Please do not publish the circled numbers. They are to be used to key the place names in the tables.

This place name key is also used to key tables on pages 504-515 of the original text (Page 53 of the translation)

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On the Arctic Coast of Siberia

Ob'	27.	Pravaya Ob'
	28.	Alexandrovo
	29.	Barnaul
	30.	Narym
	31.	Kruglikova
	32.	Surgut
	33.	Obdorsk
	34.	Itkulskiy Zavod
	35.	Kamen
	36.	Novosibirsk
	37.	Malobragino
	38.	Kolyban
	39.	Molchanovo
	40.	Velyi Zhar
Irtysh	41.	Pustynskoye
	42.	Ust-Kamenogorsk
	43.	Ust-Kamenogorsk, Ferma
	44.	Yamishevskiy Poselok
	45.	Pavlodar
	46.	Samorovo
	47.	Krasnoyarsk Poselok
	48.	Semipalatinsk
	49.	Semiyarskoye
	50.	Lebiazhiy Poselok
	51.	Chyerniy
	52.	Demyanskoye
	53.	Zhelezinka
	54.	Omsk
	55.	Tobolsk
	56.	Tara
Ishim	57.	Akmolinsk
	58.	Ishim
	59.	Petropavlovsk
	60.	Voznesenskaya
	61.	Petropavlovskaya
Tobol	62.	Zverinogolovskoye
	63.	Yalutorovsk
	64.	Iyevlevo
	65.	Verkhne-Berkteri
	66.	Bol'she Blinnikova
	67.	Tobolsk
Chulym	68.	Leonidovskiy Zavod
	69.	Achinsk
	70.	Zyrianskoye
	71.	Kashatakova
	72.	Sergeyevo
	73.	Tutalskoye
	74.	Birilyussi
	75.	Semenovskaya

See note on preceding page re circled numbers.

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Yenisey	76.	Krasnoyarsk
	77.	Kazachinskoye
	78.	Kostyl'nikova
	79.	Yeniseisk
	80.	Nazimovo
	81.	Tolstiy Nos
Angara	82.	Irkutsk
	83.	Bratskoye
	84.	Vladimirova
	85.	Kezhma
	86.	Olonki
Lena	87.	Yakutsk
	88.	Omoloy
	89.	Kirensk
	90.	Olekminsk
	91.	Markha
Aldan	92.	Ust-Maya
Kolyma	93.	Rodchevo
	94.	Sredne-Kolymsk
	95.	Nizhne-Kolymsk
Yana	96.	Verkhoyansk
	97.	Kazache
Indigirka	98.	Russkoye Ustye
Vilyui	99.	Vilyuisk

See note on preceding page re circled numbers

etc

End

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Frequency of Wind Direction (%)

(Place Names: List No 1)

Mask for tables on pp 118 to 151

Place Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Entire Year

[End of Part I]

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Part II

Meteorological Tables by Year and Month

DOCUMENT NO.
NO CHANGE IN CLASS. ☐
X DECLASSIFIED
CLASS. CHANGED TO: TS S C
NEXT REVIEW DATE:
AUTH: HR 70-2
DATE: 3/6/82 REVIEWER: 037169

Approved For Release 1999/08/25 : CIA-RDP78-03109A000500010004-0

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Preface

This is Part II of the Volume of East Asia Meteorological Statistics dealing with Siberia (Vol IV).

This volume gives, for each year and month, meteorological averages ~~statistics~~ as well as the number of days of different types of weather, soil temperature, evaporation, days of sunshine, depth of snow cover, first and last days of freezing, first and last days of snowfall, the freezing and thawing of rivers and harbours, and other useful information.

The figures given for atmospheric pressure and temperature are the averages of the three daily readings taken at 0700, 1300, and 2100. The figures for vapor pressure, humidity, sky ~~cloud~~ cover, wind velocity, etc, are the averages of the readings taken at 1300.

Atmospheric pressure is expressed in millimeters corrected to 0° centigrade and standard gravity (sea level at Lat 45°)

Temperature is given in centigrade ~~on the celsius scale and is~~ corrected to the international temperature scale (hydrogen ~~centigrade or~~ celsius thermometer).

Vapor pressure is expressed in millimeters, and humidity is shown as percentage of saturation

Sky cover is expressed in figures: 10 being complete cover, 0 the total absence of cloud, and 1 to 9 the varying intermediate quantities.

Wind velocity is given in meters per second; precipitation is given in millimeters, the reading taken at 0700 being the precipitation for the previous day.

Maximum and minimum atmospheric pressures for the month are the maximum and minimum readings taken at any of the three times noted above. The highest maximum temperature is the highest temperature observed at any of the three [daily] ~~hours~~ observations during the month. The lowest minimum temperature is the lowest thermometer reading during the month, and the average minimum temperature is the average of the lowest

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daily readings.

"Number of Days with Minimum Temperature equal to or less than Zero ~~or Less~~" corresponds to the number of days of freezing when the temperature falls to 0° C or below, i.e., Number of Days of Freezing. "Number of Days with Maximum Temperature equal to or less than Zero ~~or Less~~" corresponds to the Number of Days with No Thaw, when none of the three temperature readings is above 0° C.

Days of fine weather are those on which the total of the three observations ~~assessments~~ of sky cover in one day does not exceed 5. Days of cloud are those on which the total ~~assessment~~ is 25 or over.

Days of precipitation (including rain, sleet, hail, and snow), days of snow, and days of hail are those on which there was a fall of 0.1 mm or more, the reading being taken at 0700 hours the following morning. A fall of less than 0.1 mm is disregarded.

Days of fog are those on which fog was observed.

Days of thunder are those on which thunder occurred. The sign ⚡ indicates lightning accompanying local thunder and the sign T indicates distant thunder. When there is local lightning and distant thunder on the same day the sign ⚡ only will be used and the distant thunder disregarded.

Humidity and vapor pressure are measured on a dry and wet bulb thermometer when the wet bulb temperature is 0.5°C or more. If it is less than 0.5° C they are calculated with a hair hygrometer in conjunction with temperature.

Evaporation is shown in millimeters and is measured in the shade.

Sunshine is given in hours and the figure represents the total number of hours per month during which the sun shone undimmed by cloud or mist. ~~The rate of sunshine~~ Insolation is the ~~percentage~~ amount of sun experienced ~~compared to~~ expressed in percent of the potential number of hours of sunshine. The potential is not computed astronomically but varies according to the terrain and characteristics of the locality.

Snow cover is shown in centimeters, and ~~gives~~ is the average depth for each

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ten-day period. The maximum snow cover is the highest figure of the above ten-day averages.

The last day of freezing in the first half of the year (January to June) and the first day of freezing in the latter half of the year (July to December) are the last and first days on which the minimum temperature falls to 0° C or below, read on a thermometer within a thermoscreen.

The last and first days of snow are the last and first days during the first and latter half of the year on which there was snowfall.

The dates of freezing and complete freeze-over of the main rivers that empty into the Pacific and Arctic Oceans are the days on which they are covered with a sheet of ice from bank to bank, whatever or the day when of thickness all floating ice near the banks movement of has ceased. The date of thaw is the first day on which the ice breaks or the water starts to flow.

This section includes the latest information on the freeze-up conditions of the harbours on the Pacific coast, based on "The State of Ice on the Seas of the USSR; Fasc. 1-4; Winter 1924-1928." (Russian text)

p 155-156

List of Weather Stations

The List of Place-names used in Part II follows. They have been extracted from Weather Station List No 1 in Part I

Publications: Refer to List one for correct transliteration of place-names.

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(Mask for Pages 157 to 462) There is a separate mask for p. 437, bottom. See page 44 of this translation

(Publications Note: Each page in this group has the same heading ...i.e.:)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Complete Year

(The Japanese items running down the left of the pages in this group are translated as follows. Numbers are those keyed in the original document in red.)

1. Mean Atmospheric Pressure
2. Maximum Atmospheric Pressure
3. Minimum Atmospheric Pressure
4. Mean Temperature
5. Highest Maximum Temperature
6. Lowest Minimum Temperature
7. ~~Average~~ Mean Minimum Temperature
8. Vapor Pressure
9. Humidity
10. ~~Sky Cover~~ Cloud Amount
11. Wind Velocity
12. Rainfall (mm)
13. Maximum Rainfall in One Day (mm)
14. Number of Days of Rain
15. Number of Days of Snow
16. Number of Days of Hail
17. Number of Days of Local ~~Lightning~~ THUNDER
18. Number of Days of Distant Thunder
19. Number of Days of FINE WEATHER ~~Clear~~ (~~Cloud Amt~~ Sky cover 0.0 - 0.2)
20. Number of cloudy Days ~~Overcast~~
21. Number of Days of Fog
22. Number of Days of ~~Gale~~ Storm
23. Number of Days with Maximum Temperature equal to [illegible] than Zero.

Publications: This is a key. All numbers do not appear in every series under a place name.

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24. Number of Days with Minimum Temperature equal to or Less than Zero

[redacted] OUT

26. Frequency of Wind Direction

27. Mean Maximum Temperatures

28. Lowest Recorded Temperature

29. Number of Days of Rainfall ~~up to~~ of 0.1 mm or less

30. Number of Days of Rainfall ~~up to~~ of 1.0 mm or less

31. Number of Days of Rainfall ~~up to~~ of 10.0 mm or less

32. Number of Days with Thunder

33. Highest Recorded Temperature equal to or less than Zero

34. Number of Days of Snow Cover

35. Latest Snow Cover of the Year

36. Average Depth of Snow Cover

37. Monthly Average Depth of Snow Cover

(The Place Names, appearing in the original document in French transliteration, on the top of each page, are rendered as in Place Name List No 1, Part I. They are identified by number.)

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(Mask for Table on Lower Part of p 437)

Frost							Snow						
	First day			Last day				First day			Last day		
Year a	Day c	Month d	Minimum Temperature (C°) e	Day f	Month h	Minimum Temperature (C°) i	Year k	Day l	Month m	Minimum Temperature (C°) n	Day p	Month q	Minimum Temperature (C°) r

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(Mask for Page 464)

Ground Surface Temperature

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Complete Year
(Place Names)													

a Tobolsk Okrug
b Tyumen

c Tomsk Oblast
d Itkulskiy Zavod
e Barnaul
f Borovya Ozera
g Zyranovskiy Rudnik
h Tomsk

i Akmolinsk Oblast
j Omsk

Cont'd

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NEXT REVIEW DATE: 31
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(Mask for Page 465)

cont

Ground Surface Temperature cont

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Complete Year
(Place Names)													

Yakut ASSR
b Verkhoyansk
c Chita Oblast and Buryat Mongolian ASSR
d Chita
e Sakhalin
f Alexandrovskiy Post
g Korsakovskiy Post
h Rukovskoye

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(Mask Pages 468-472)

Soil Temperature

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Complete Year
(Place Names, Page 468)													

a Tomsk Oblast
b Borovya Ozera
c Barnaul
d Zyranovskiy Rudnik
e Tomsk

(Place Names, Page 469)

f Tomsk Oblast
g Akmolinsk Oblast
h Omsk

(Place Names, Page 470)

i Yeniseysk Oblast
j Achinsk
k Chita Oblast and Buryat Mongolian ASSR
l Akatuy
m Chita
n Maritime [redacted] KRAY
o Galinko-Vrazhskoye

cont'd

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(Place Names, Page 471)

Maritime ~~and Sakhalin~~ KRAY
Khabarovsk
Alexandrovskiy Post
Rukovskoye

(Place Names, Page 472)

Maritime ~~and Sakhalin~~ KRAY

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(Mask Pages 474, 475)

Evaporation, (Measured in Shade)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Complete Year
(Place Names, Page 474)													
a Tomsk Oblast													
b Barnaul													
c Borovya Ozera													
d Zyranovskiy Rudnik													
e Tomsk													
f Chita and Buryat Mongolian ASSR													
g Nerchinskiy Zavod													
h Akmolinsk Oblast													
i Omsk													
(Place Names, Page 475)													
j Maritime ~~and Sakhalin~~ KRAY													
k Galinko Vrazhskoye													
l Korsakovskiy Post													
m Alexandrovskiy Post													
n Rukovskoye													

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(Mask, Pages 478, 479, 480, 481)

Sunshine

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Complete Year

(Place Names, Page 478)

a Tobolsk Okrug
b Tobolsk Agricultural School
c Staro-Sidorovo
d Obdorsk
e Surgut
f Tomsk Oblast
g Borovya Ozera

(Page 479)

h Tomsk Oblast
i Itkulskiy Zavod
j Zyranovskiy Rudnik
k Kainsk School
l Karagatskiy Forpost
m Tomsk Agricultural School

(Page 480)

n Irkutsk Oblast
o Bol'shoye Goloutsnaye
p Usolye
q Chita Oblast and Buryat Mongolian ASSR
r Chita

(Page 481)

s Chita Oblast and Buryat Mongolian ASSR
t Akatuy
u Maritime KRAY
v Grodekovo
w Yeniseysk Oblast
x Krasnoyarsk

(KEY:
① = Sunshine (Hours)
② = Insolation.

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(Mask for Pages 484, 485, 486, 487, 488, 489, 490)

Mean Depth of Snow Cover (cm)

Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May

(Key: a /in red/) Lat N etc Long E etc Elev etc.

(Place Names)

Page 484

l. Tobolsk Okrug
1. Tobolsk
2. Surgut
3. Karmak
4. Ishim
5. Tyumen

Page 485

6. Salair
7. Kamen
8. Narym
9. Tomsk
10. Barnaul

Page 486

c Semipalatinsk Oblast
35. Pavlodar
59. Semipalatinsk
57. Ust-Kamenogorsk
d Yeniseysk Oblast
1. Turhansk
2. Achinsk

Page 487

68. Kansk
e. Verkhne Usinskoe
b Yakut ASSR
79. Blagoveshchenskiy Priisk
93. Verkhoyansk
g. Amga

Page 488

h Kazach'ye (Ust-Yansk)
i Kirensk
j Bratskiy Ostrog
k Irkutsk
l Omoloy

Page 489

m Chita Oblast and Buryat Mongolian ASSR,
n Stretensk
o Chita
p Nerchinskiy Zavod
q Akatuy
R Sakhalin, A Alexandrovskiy Post

Page 490

t Rukovskoye
u Maritime KRAY v KOZLOVSKAYA
w Vladivostok
x Okhotsk
y Nikolayevsk-na-Amure
z Markovo-na-Anadyre

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Publication — this pattern covers an entire page of the original text.

(Mask p 492- 501)

FB

aa First and Last Dates of Freezing(*)	bb First and Last Snow[redacted]	dd First and Last Dates of Freezing(*)	ee First and Last Snow[redacted]

cc (Freezing = Minimum temperature equal to or less than 0° C ~~or less~~)

YEARS	First Date Day	First Date Mo	Last Date Day	Last Date Mo	First Date Day	First Date Mo	Last Date Day	Last Date Mo

ff (Freezing = Minimum Temperature equal to or less than 0° C ~~or less~~)

YEARS	First Date Day	First Date Mo	Last Date Day	Last Date Mo	First Date Day	First Date Mo	Last Date Day	Last Date Mo

P. 492 a. TOBOLSK OKRUG

(Place Names as in List No 1)

b = Lat N etc Long E etc ELEVATION etc

(and in all similar headings following place names)

(Pub Note: Footnote on page 492 only:)

P493 b. TOMSK OBLAST

P495 c. YENISEYSK OBLAST

d. YAKUT ASSR

P496 e. SEMIPALATINSK OBLAST

P497 f. IRKUTSK OBLAST

g. MARITIME KRAY

P498 h. IRKUTSK OBLAST

P499 i. CHITA OBLAST and BURYAT MONGOLIAN ASSR

P501 j. AMUR OBLAST

(*) The first and last dates of freezing are the first and last dates on which the lowest temperatures are 0° C or below, read on a thermometer inside a thermoscreen.

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503.

(Mask for Headings of Tables on pp 504-515)

Freezing and Thawing of Rivers(*) i

River a	Observation Station b	Lat N c	Long E d	Years e	Thaw f	Freez[redacted] e g	Complete Cessation of River Flow h

(Place Names as follows:)

Same as Part I, pp 115-117 of original manuscript; corrected on pages 35, 36, and 37 of translation. Please use key on pages 35, 36, and 37 of translation.

(Pub: Footnote on page 504 only)

(*) The date of freezing is the ~~date~~ day on which the river is covered with ice from bank to bank, regardless of thickness, or the day when ~~and~~ the flow of ~~water~~ ice near the banks stops. The date of thaw is the ~~date~~ day on which the ice breaks ~~and~~ or the ~~water~~ ice starts to [redacted] move.

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CLASS. CHANGED TO: TS S C
NEXT REVIEW DATE:
AUTH: HR 70-2
DATE: 3/6/82 REVIEWER: 037169

Approved For Release 1999/08/25 : CIA-RDP78-03109A000500010004-0

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(Mask p 517)

~~Harbor Facilities~~ Conditions and Freeze-up of Harbors of the Pacific ~~Seaboard~~ Coast of Siberia

From "The State of Ice on the Seas of the USSR" (Winter 1924-1928)

Grease ICE is formed when ice needles have crystallized but have not yet formed a solid sheet of ice. The sea is covered with floating particles of ice which form a thin ash or lead-colored scum. It then forms a layer of ice which becomes ridged with the movement of the sea, and the effect of the wind blowing over the "grease ICE" thus formed is to level off the ridges and give the surface a slippery appearance.

Drift Ice consists of fragments of various types of ice floating on the surface of the sea. (Taken from "An Album of Ice Forms", 1930, Published in Leningrad.)

Land Ice is the solid ice shelf extending from the sea shore for a distance of about 10 miles out to sea, to which floating ice becomes attached.

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(Mask and Key for pp 518 to 533)

Year a	Grease Ice b	Floating Ice c	First Land Ice d	Closed to Navigation e	Complete Freeze-up f	First Date of Transport etc Over Ice g	Breakup of Ice h	Open to Navigation i	Disappearance of Ice j	Number of Days of Freeze-up k	Maximum Extent of Land Ice (miles) l	Maximum Thickness of Ice (cm) m

Key
1. Middle Part
2. Actual Dates
3. No Freeze-up
4. Lat N - Long E
5. Continuous
6. Navigable in winter
7. Navigable
8. Extends to
9. To the horizon
10. With dogs and on foot
11. With horses
12. Twice only
13. Lighthouse
14. ~~Wenkuan Strait~~ TARTARY STRAITS (MAMIYA KAIKYO)
15. Not known
16. No stoppage of navigation
17. Continuous in the bay
18. With dogs
19. On foot
20. Nil

Heading of tables are on next page and following pages. Place names are on pages 57 to 60 of this translation

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(Headings of Tables as Follows:)

p 518/519; p 520/521: Bering Sea

p 522/533; p 524/525 (top) Sea of Okhotsk

p 524/525 (bottom): Amur Bay

p 526/527 (top): ~~Heilung~~ Amur River

p 526/527; p 528/529; p 530/531; p 532/533 (top): Sea of Japan

p 532/533 (bottom) ~~Sea of~~ Siberian Sea

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(Mask for p 518 - p 532)

Place Names, p 518:

aa Laurentia Bay

bb Chaplina Cape

cc Provideniya

dd (1) Provideniya Bay

ee (2) Emma Harbor

ff Kresta Gulf

gg Anadyr

hh (1) Nerpichi Bay

ii (2) Anadyr Bay (Main Estuary)

jj Olyutorskiy Fish Factory (Apuka)

kk Tilichiki (Korfa Gulf)

ll Kichiga (Litke Str)

mm Karaginskiy

nn Uka

(1) Ukinskaya Bay

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Place Names p 520:

aa (2) Uka River, ~~its Affluents~~ TRIBUTARIES and Mouth

bb Bering Island, Nikolskoye

cc Kolyger

dd Petropavlovsk Lighthouse

ee (1) Open sea

ff (2) Avacha Bay (Entrance in the Bay)

gg (3) Rakovaiya Bay

hh ~~Deymourstraight Bering~~ DEZHNEVA, BERING STRAITS

ii Preobrazheniya Bay

jj (1) Little Bay

kk (2) Large Bay

ll (3) Open Sea

Place Names P 522:

aa Ust'Khayryuzovo, Open Sea

bb Palana River Mouth

cc Yamskaya Bay

dd (1) Perevolochny Gulf

ee (2) Yamskaya Bay

ff Okhotsk

gg Chumikan (Udskaya Bay)

hh Bol'shoy Shantar Island (Yamskaya Bay)

ii Ola-Tavriskaya Bay - Ola Bay

jj Ayan, Ayan Bay

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Place Names p 524

aa Vorovskaya River Mouth (West coast of Kamtchatka)

bb Gizhiga

cc Viliginskiy Priisk

dd Nayakhan

ee Langer (Northern Part of Nevelski Channel)

ff Pronge (Amur Estuary and South Channel)

gg Dzhaose Point (South Channel)

hh Nikolayevsk (Amur River)

Place Name p 526

aa Khabarovsk (Osipova Bay of Amur River)

bb Kloster Kamp Lighthouse

cc (1) De Kastri Bay

dd (2) Tartary Straits

ee Alexandrovsk (Sakhalin) (Tartary Strait)

ff Jonquiere (Tartary Strait)

gg Miliautin Lighthouse

hh (1) Tartary Strait

ii (2) Sovietskaya Gavan

jj Nikolayevskiy Point

Place Name p 528

aa Belinskiy Lighthouse (Tartary Strait)

bb Veselui (St. Vladimir Bay)

cc Chikhachevsky Lighthouse

dd (1) Open Sea

ee (2) Ol'ga Bay

ff Ol'ga (Ol'ga Bay, Tikhaya Pristan)

gg Nizmenskiy Lighthouse (Open Sea)

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bb Askolt Lighthouse

ii Skrypleva (1) Ussuriyskiy Bay

Place Names p 530

aa (2) East Bosporus (West Side)

bb Basargin (Patroklus Bay)

cc Vladivostok Naval Observatory
dd (Golden Horn Bay)

ee Vladivostok (Observatory Mount) (Amur Bay)

ff Tokarevski Lighthouse

gg (1) East Bosporus (West Side)

hh (2) Amur Bay

ii River Lighthouse (Northern Part of Amur Bay)

jj Brussovski Lighthouse

kk (1) Amur Bay

Place Names p 532

aa (2) Slavianski Bay

bb Gamova Light (Peter the Great Bay)

cc Nazimov Light (Pos'yeta Bay)

dd (1) Pallada Road

ee (2) Novgorod Bay

ff (3) Expedition Bay

gg Povorotny Lighthouse (Open Sea)

hh North Point

ii Whalen

(END Part II)

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Part III

Annex: Notes and Maps

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EAST ASIA METEOROLOGICAL DATA

Volume IV Siberia

Annex

Maps and Notes

Contents

1. General Remarks
2. Distribution of Atmospheric Pressure and Prevailing Winds
3. Temperature
4. Humidity and ~~Evaporation~~ Vapor Pressure
5. ~~Cloud~~ Sky Cover
6. Number of Cloudy ~~Days~~ and Fine Days
7. Precipitation
8. Number of Days of Precipitation
9. Snowfall
10. Fog
11. Freezing and Thawing

Maps

Nos 1 - 13 ~~Distribution of~~ Atmospheric Pressure and ~~Prevailing Winds~~ Wind Direction

Nos 14 - 27 ~~Distribution of~~ Temperature (Sea Level)

Nos 28 - 39 ~~Dates of Specified~~ Seasonal Temperatures

Nos 40 - 47 ~~Number of Days' Duration of Specified Temperatures~~ Daily average Temperatures

Nos 48 - 60 ~~Distribution of~~ average Humidity

Nos 61 - 73 ~~Distribution of~~ Sky Cover

Nos 74 - 86 ~~Distribution of Number of Days of Sky Cover~~ Number of Days of Overcast

Nos 87 - 99 ~~Distribution of~~ Precipitation

Nos 100 - 112 ~~Number of Days of Precipitation~~

No 113 Number of Days of Snowfall

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No 114	Snow Cover ~~Distribution and Depth of Snow Cover~~
Nos 115-116	First and Last [redacted] Snow [redacted]
Nos 117-119	Dates of Freezing and Thawing
No 120	~~Number of Days of Freezing~~ Distribution of Permanently-frozen Strata

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EAST ASIS METEOROLOGICAL DATA

VOLUME IV SIBERIA

Annex

Maps and Notes

1. General Remarks

Siberia is situated in the northern half of the Eurasian continent and is a vast area lying between 50° and 75° North and 60° and 180° East. It is bounded on the north by the Arctic Ocean and on the east by the Pacific; on the west it is cut off from Europe by the Ural Mountains and in the south it is bounded by Manchuria and Outer Mongolia. From a topographical point of view it is divided into clearly-distinct regions. From the Ural Mountains to the Yenisei River are the West Siberian lowlands; between the Yenisei River ~~to~~ and the Verkhoyanski Mountains lies the Central Siberian plateau and together these two constitute the largest part of Siberia. From the watershed to the east coast is the Far Eastern region. The Turkistan basin lies to the south in Central Asia separating the West Siberian lowlands and the hilly area of Kirghiz. The above western area is the largest natural land-mass of Siberia. The vast area of Siberia also contains the Tundra region, lying adjacent to the coast of the Arctic Ocean, and the "Taiga" region further inland, which is covered with a luxuriant growth of coniferous and deciduous forests. ~~and~~ The region south of the Taiga ~~which~~ is termed the Steppe. South of the Steppe are deserts, which are found in each zone. The formation of the continent into contiguous zones in this manner is the chief factor influencing the weather, so that a study of the topography is of prime importance in considering the meteorology of Siberia.

About a third of the northern part of Siberia lies within the frigid zone and with the exception of the coastal areas and the region near Lake Baikal, the greater part of Siberia has a continental climate of the frigid zone type.

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The chief characteristic of Siberian weather is the extreme cold during winter; ~~and~~ it experiences the most severe cold of any region in the world, with the exception of the polar regions. In the vicinity of Verkhoyansk (Latitude North 67°33', Longitude East 133°24'), the average temperature for January is -50.1°C and a temperature of -67.8°C has been recorded. At high latitudes the winter nights are extremely long, and as the sun is low in the sky during the day its rays are very weak. In the far north it is not visible at all. For this reason it is extremely cold during the nights and the result is the peculiar cold climate referred to above. Harbors, rivers, lakes, and the soil itself are all frozen hard. During the summer the surface of the ground thaws, but the soil several meters beneath the surface remains permanently frozen. This area of perpetually frozen land covers 300,000 square kilometers in the north, and constitutes the remote Tundra region.

On account of the extreme low winter temperatures the high pressure area is concentrated and registers 775 mm at its center in Mongolia. This high pressure is correlated to the low pressures occuring south of the Aleutian chain and in the Indian Ocean. It causes cold dry winds to blow across the Siberian plains, Manchuria, the China continent, and as far as Japan. This is the winter wind that controls the winter climate of Far East Asia. It blows in a clockwise direction from the interior of the continent out to sea. In the Siberian plains the winds are generally SW or SSW; in the ~~Outer~~ TRANS-Baikal area and the Amur area, NW or W; on the Pacific coastline NW or W. Wind velocity in Western Siberia is 2 to 4 meters per second, and in the Southern Mountainous region and the Central Siberian Plateau it is generally weak, averaging approximately 1 meter per second with a large proportion of windless days. This factor makes the extreme cold comparatively bearable. The Pacific coast, however, is surrounded by area of high pressure and the winds [illegible] is very

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little precipitation in the Siberian plain as temperatures are low and ~~what~~ that which does fall takes the form of snow. This snowfall is slight with 10 to 50 cm during the three winter months. This is because the air streams that bring the moisture flow in from the dry regions of Mongolia and Manchuria.

In contrast to those of winter, the days in summer are very long. The sun sinks below the horizon for a short while, reappearing again almost immediately. The dusk of evening merges into the dawn of the next day, and there is no interval of complete darkness such as is observed in Tokyo. It follows that the amount of radiation on one day is large and the consequent rise in temperature is a characteristic feature of the continent. During July the whole of Siberia from East to West is in the isothermic range of 10° to 20° C. The temperature of the land is high compared with that of the sea. The low pressure area is located in Mongolia and registers 753 mm at its center with moist air currents blowing off the sea towards the interior of the continent. This is the seasonal wind that controls the summer climate of Far Eastern Asia. As a rule it is a light wind of 2 to 4 meters per second and its direction in winter is varying and unpredictable. A westerly wind prevails in western Siberia, a southwesterly wind in the mountainous areas of the south, a NE wind in the Transbaikal and Ural regions, a southerly and SW wind in the region along the Pacific coast, and a NE wind in the coastal area of the Arctic Ocean. The moist winds carry humidity into the continent and half the precipiation for the year falls in the summer. The mild temperature combined with rainfall makes part of Siberia suitable for agriculture and there are thick forest of "Taiga" covering a broad area of the central zone. However, the summer is very short and precipitation slight, ~~and this~~ which facts combined with the low atmospheric and ground surface temperatures in spring and autumn make agriculture extremely difficult and unprofitable. The far eastern region, however, is favored by a comparatively high temperature and heavy precipitation.

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owing to the prevailing summer winds and a certain amount of land has been brought under cultivation. One of these regions stretches from Sinkiang in Mongolia towards Central Asia and is a great distance from the sea coast. The moist wind blowing off the sea in the summer is obstructed by the Takhingan mountains and other mountain ranges and does not penetrate the interior of the continent, so that little rain snow or humidity reaches the area and there is a large proportion of days of fine weather. Furthermore, the volume of evaporation is large and in winter when the wind blows seaward, owing to the influence of the center of high atmospheric pressure, the whole area is cut off from its source of moisture and is exceptionally dry. The specific heat of the ground, however, is low and day and night temperatures vary greatly. All these factors go to produce large tracts of dry desert.

Annual variations in temperature are very marked in Siberia, ranging between -20°C and -35°C in January and 10°C and 20°C in July. The Lena River in the Yakutsk region the Yana River and the Indigirka Basin have a great variation, from 50°C to 60°C, and in Verkhoyansk the temperature reaches 66°C. Other places normally have temperatures ranging between 40°C and 50°C. Thus since a winter with a very low temperature will be followed by a summer with a moderately high temperature there will be marked changes in temperature in spring and autumn. From March to June the temperature rises by an average of 10° to 15° C month and maximum temperatures are reached everywhere by July. From August to September there is a rapid drop of 7° to 8° C, and from then until November a sudden fall of a further 10° to 15° C. Subsequently the temperature reaches its minimum in January. Thus there are rapid fluctuations in temperature from winter to summer and summer to winter. If we assume that, as in the Tokyo area, a variation of approximately 5°C marks the dividing line between winter and spring and autumn and winter,

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Siberia may be said to have its spring in May and summer in June, July and August, with temperatures of 10°C to 20°C, and have to winter suddenly in the middle of September. By about the middle of October the whole of Siberia has temperatures below zero. Spring and autumn are extremely short and to all intents and purposes the year is divided into winter and summer seasons only.

At Russkoye Ustye and Kazachye on the coast of the Arctic Ocean the first snow falls in the early part of July; at Obdorsk, Turkhansk and Verkhoyansk, in the early part of September; at Tobolsk, Surgut, Tomsk, Yeniseisk, Kirensk, Olekminsk and Yakutsk in Central Siberia, in the latter part of September; and in most places in the south, in early October. Some places in the Transbaikal region, however, have their first snowfall earlier, about the beginning of September, on account of the mountainous nature of the area. Most places in the south have their last snowfall about the middle of May, but this occurs later, about the end of May, in the mountainous regions of Transbaikal. The central area has its last snowfall at the end of May, and the coastal regions of the Arctic Ocean in the middle of June. In winter, precipitation almost always takes the form of snow. The falling snow does not melt, each successive fall accumulating till the snow cover reaches its maximum depth at the beginning of March. But precipitation is small and snow cover is proportionately slight, rarely exceeding 1 meter in depth, so that although Siberia is a cold country it is not often that skis can be used. In the Ob and Yenisei River Basins in Western Siberia there is a fall of 80 to 100 cm; in the lower reaches of the Amur River, in Sakhalin (Karafuto), in the Anadyr River Basin, and in Kamchatka it is 60 - 80 cm; and elsewhere it is between 20-50 cm. Snow cover is particularly light over an area stretching from the Transbaikal region to Manchuria, the Lena River, and the Indigirka River Basin.

There is a large proportion of days [illegible] in

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Tobolsk Oblast, Tomsk Oblast, Yeniseisk Oblast and Irkutsk Oblast; there is a smaller number, between 20 and 40, over an area that includes the Transbaikal Area, the Amur oblast, the Amur River Basin, the Am River (a tributary of the Lena) and the Aldan River Basin. These areas where sky cover, precipiation, and evaporation are all slight in winter may be considered to form extensions of the vast Mongolian deserts.

In winter, rivers, lakes, and harbors are frozen over; all shipping transport either eases or becomes extremely difficult. But the surface of the ice, on the other hand, is firm enough for transport and thus proves itself useful. The coasts and rivers of the Arctic Ocean start to freeze up at the beginning of October and by the end of November all the large and small rivers of Siberia are completely frozen over. The rivers flowing south start to thaw at the end of April. The mouths of the rivers that flow into the Arctic Ocean are unfrozen for a short time by the beginning or middle of June. The places that are completely ice-free, however, remain so for about 10 days only. The Arctic Ocean remains frozen over for a large part of the year and the northern coastline of Siberia is rarely ice-free for more than a very short period. The coastal waters of the Bering Sea are frozen from the middle of November until the middle of December and by June all the ice has thawed except for the northern part of the Bering Sea Straits, which are not ice-free till late July or early August. Petropavlovsk in Kamchatka, however, is never ice-bound and shipping traffic is rarely interrupted. The Sea of Okhotsk begins to freeze about the beginning of November and is ice-free from about the middle of May till the middle of June. The coastal waters of the Sea of Japan are frozen from the middle of November till about the middle of December and are ice-free from the middle of April till the middle of May. Vladivostock

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