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Upper Wind Distribution Statistical Parameter Estimates

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UPPER WIND DISTRIBUTION STATISTICAL PARAMETER ESTIMATES

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1. INTRODUCTION

The use and importance of upper-air wind data continue to increase. One reason is the growing and spreading knowledge of how to use the data more efficiently. Another reason is the urgency created by atomic and nuclear weapons, by rocket and satellite vehicles, and the economics of air transportation. Complete knowledge of all the relationships among the winds in space and time is lacking. Therefore, as new information is obtained its publication will enable others to advance their knowledge and to bridge those gaps now existing.

Several valuable publications are now available. The U. S. Navy [17] published in NAVAER 50-1C-526 a detailed summary of wind data over the United States of America and the Atlantic and Pacific Oceans, and presented [18] these data in graphical form in NAVAER 50-1C-528 and 529. The Navy publications and the British publications by Brooks and others on upper winds [2, 3, 9, 14] are mutually supplementary.

Several Meteorological Services now publish routinely the vector mean winds at selected station levels. Included in the publication of data for some stations, notably the British, are the standard vector deviations. In some, the scalar means are also published; these are the means of the speeds without regard to direction.

Many investigators have contributed to the extensive use of wind distribution parameters to answer problems facing meteorologists and associated scientists. Among the British, Canadian, and United States contributions are [1 - 16]. The present use of such data has been most strongly centered on the effects of wind on air transportation, radioactive "fallout", guided missile operation, and air pollution in general. Specific uses are given in the referenced papers.

2. PURPOSE

The purpose of this publication is to place in the hands of the user derived estimates of some sta-

tistical parameters of wind distributions over the Northern Hemisphere. Some of the uses of these derived parameters are discussed in the referenced papers and therefore are not repeated here.

Statistical parameters and derived values prepared from the original data are presented in the tables of this publication. These do not exhaust all of the possible relationships among the data, but they do present many of the wind data on a Northern Hemisphere basis that are urgently needed by the meteorologist, the forecaster, the climatologist, and the research worker in many fields of endeavor.

3. SOURCE OF DATA

The data used in this publication are on file at the National Weather Records Center in Asheville, N. C. These are a by-product of various projects accomplished at the Center, primarily those of the U. S. Navy. The general areas, period, and pressure levels of the data are as follows:

United States

- 4 Seasons: winter (Dec., Jan., Feb.), spring summer, fall
- 1 Period: 5 years, 1948 to 1953
- 5 Levels: 850, 700, 500, 300, 200 mb.

North Atlantic Area

- 4 Seasons: winter, spring, summer, fall
- 1 Period: 5 years, 1948 to 1953
- 5 Levels: 850, 700, 500, 300, 200 mb.

North Pacific Area

- 4 Seasons: winter, spring, summer, fall
- 1 Period: 5 years, 1948 to 1953
- 5 Levels: 850, 700, 500, 300, 200 mb.

Canadian, Arctic, and Caribbean Areas

- 4 Seasons: winter, spring, summer, fall
- 1 Period: 5 years, 1948 to 1953
- 4 Levels: 700, 500, 300, 200 mb.

Eurasian Area

- 4 Seasons: winter, spring, summer, fall

1 Period: 6 years, 1950 to 1956, inclusive
5 Levels: 850, 700, 500, 300, 200 mb.

Adjoining Areas

4 Seasons: winter, spring, summer, fall
X Period: variable
5 Levels: 850, 700, 500, 300, 200 mb.

For the Northern Hemisphere, reaching westward from about the Greenwich meridian to the coast of Asia, 5 years of record, 1948-1953, were used to produce the publication NAVAER 50-1C-526. The data from the 108 stations used in that project have been supplemented here by data for the same period from western Greenland, Canada, Mexico, the Caribbean area, Africa, and Eurasia.

Rawin observations were the primary source of data. Daytime observations, one per day, were used, as the balloons usually reach higher altitudes during the day. Thus, for the first two octants (0° longitude westward to 180°) the 1500 GMT soundings were used.

In a few cases, where rawin observations were initiated after the beginning of record, pibal data were used to fill out the observation record prior to the use of rawins.

Supplemental data for about 40 stations in the European, African, and Asian sections were obtained, also as by-products of projects effected at the Center. These data in general cover the period 1950-1956. Gaps exist in the record for some stations which have not been completed by scaling of values from upper-air charts. Where gaps have been filled, the methods used to provide "fill-in" data are those discussed in NAVAER 50-1C-526 and in unpublished sources available at the National Weather Records Center.

At the present time, data for the Northern Hemisphere for the periods specified previously are available only up to 200 mb. As data become available for higher levels, either directly from, or as a by-product of, a project, it is planned to issue such data in a supplemental publication.

4. STATISTICAL PARAMETER ESTIMATES

The estimates of the statistical parameters of the upper wind distribution are tabulated on pages — . Table 1 gives the symbols and definitions of the statistical parameters and the formulas used in computing the tabulated estimates. Table 2 provides the list of stations by geographic areas, by latitude, longitude, time of observation, period of record, and the pressure surfaces used. The

stations are listed alphabetically in the table of contents.

5. FUTURE PLANS

The data presented here lend themselves to analysis on a hemispheric basis. In a separate project supported by the U. S. Navy, the U. S. Weather Bureau has initiated analysis of selected parameters over the Northern Hemisphere. Charts will be published by the Chief of Naval Operations as a part of the Navaer series.

Among those parameters initially selected for analysis are the isogons and isotachs of the vector mean wind, the standard vector deviation, the means and standard deviations of the zonal and meridional wind components. Cross-section analyses at selected meridians from the equator to the pole of the same parameters will be made.

REFERENCES

1. H. H. Bindon and W. A. Thorne, "Winds on the North Atlantic Air Routes," National Research Council of Canada, Report No. C.C. 126, Sept. 1950.
2. C.E.P. Brooks, C.S. Durst, and N. Carruthers, "Upper Winds Over the World," Part I. "The Frequency Distribution of Winds at a Point in the Free Air," Quarterly Journal of the Royal Meteorological Society, vol. 72, Jan. 1946, pp. 55-73.
3. C.E.P. Brooks, C.S. Durst, N. Carruthers, D. Dewar, and J.S. Sawyer, "Upper Winds Over the World," M. O. 499e, Great Britain Meteorological Office, Geophysical Memoirs No. 85 (Fifth Number, Volume X), London, 1950, 149 pp.
4. Arnold Court, "Maximum Variability Level of Winds," Scientific Report No. 2, Contract AF19 (604)-2060, Cooperative Research Foundation, San Francisco, Calif., May 1957.
5. Harold L. Crutcher, "Route Equivalent Winds," Bulletin of the American Meteorological Society, vol. 37, No. 1, January 1956, pp. 14-18.
6. Harold L. Crutcher, "On the Standard Vector-Deviation Wind Rose," Journal of Meteorology, vol. 14, No. 1, February 1957, pp. 28-33.
7. Harold L. Crutcher, "Wind Aid from Wind Roses," Bulletin of the American Meteorological Society, vol. 37, No. 8, October 1956, pp. 391-402.
8. Harold L. Crutcher, "Wind Aid or Equivalent Wind Calculation by Sawyer's Method," paper presented before American Meteorological Society in Miami, Fla., November 1954, U. S. Weather Bureau, National Weather Records Center, Asheville, N. C.

9. C. S. Durst, "Variation of Wind with Time and Distance," M. O. 584a, Great Britain Meteorological Office, Geophysical Memoirs, vol. 12, No. 93, London, 1954, 32 pp.
10. T.J.G. Henry, Maps of Upper Winds over Canada, Meteorological Branch, Department of Transport, Toronto, Canada, 1957.
11. T. E. Hull and W. L. Godson, "The Application of Upper Air Data to the Planning of Airline Flight Schedules," Meteorological Branch, Department of Transport, CIR-1702 TEC-67, Ottawa, Canada, 1949.
12. Adam Kochanski and Peter E. Wasko, "Mean Wind Flow at the 50- and 25-Mb. Levels," Bulletin of the American Meteorological Society, vol. 37, No. 2, February 1956, pp. 61-69.
13. R. Robert Rapp, "Variability of Upper Winds," Progress Report 138-02, College of Engineering New York University, 16 September to 15 December, 1950.
14. J. S. Sawyer, "Equivalent Headwinds - Application of Upper-Wind Statistics to Air-Route Planning," M. O. 535a, Report No. 6 (First Number Volume 2), Great Britain Meteorological Office, London, 1950.
15. Norman Sissenwine, "Development of Missile Design Wind Profiles for Patrick AFB," Air Force Surveys in Geophysics No. 96, Geophysics Research Directorate, Air Force Cambridge Research Center, Bedford, Mass., 1958.
16. W. C. Spreen, "The Distribution of the Temporal Wind Variation," paper presented at 148th National Meeting, American Meteorological Society, Asheville, N. C., Oct. 29-Nov. 1, 1956; abstracted in Bulletin of the American Meteorological Society, vol. 37, No. 7, September 1956, p. 385.
17. U. S. Navy, "Tables of Winds and Their Aiding and Retarding Effect at 850, 700, 500, 300, and 200 mb.," NAVAER 50-1C-526, 3 Parts, Aerology Branch, Office of Chief of Naval Operations, U. S. Navy, January 1954.
18. U. S. Navy, "Marine Climatic Atlas of the World," NAVAER 50-1C-528, Aerology Branch, Office of the Chief of Naval Operations, U. S. Navy, Volume I, North Atlantic Ocean, November 1955. Volume II, North Pacific Ocean, July 1956.

Table 1. - Symbols and definitions of the statistical parameters and formulas used in computing the tabulated estimates.

Column	Symbol	Definition	Formula
1.	p	Pressure Surface, 850, 700 mb., etc.	
2.	J	Season (Initial Month) 12 is Winter, 03 is Spring.	
3.	$\bar{\theta}$	Direction of vector mean wind measured in degrees clockwise from North: 0° or 360° (N), 090° (E), 180° (S) and 270° (W).	$= \arctan \bar{X}/\bar{Y}$, measured in degrees clockwise from North
4.	$ \bar{V} $	Magnitude of vector mean wind.	$= \sum_{i=1}^N w_i / N$ where w_i is an individual wind vector; $ \bar{V} $ is the magnitude of the vector mean wind.
5.	S_v	Standard Vector Deviation.	$= \left[\frac{N \sum (w_i)^2 - (\sum w_i)^2}{N(N-1)} \right]^{1/2} = [s_x^2 + s_y^2]^{1/2}$; where $ w_i $ is the magnitude of the individual wind vector.
6.	$\bar{X}$	Mean of the zonal (East-West) components of the wind. A minus sign (-) indicates a westerly component. A plus (+) indicates an easterly component.	$= \sum w_i \sin \theta_i / N$
7.	S_x	Standard deviation of the zonal wind components.	$= \left[\frac{N \sum (w_i \sin \theta_i)^2 - (\sum w_i \sin \theta_i)^2}{N(N-1)} \right]^{1/2}$
8.	$\bar{Y}$	Mean of the meridional (North-South) components of the wind. A minus sign (-) indicates a southerly component. A plus sign (+) indicates a northerly component.	$= \sum w_i \cos \theta_i / N$
9.	S_y	Standard deviation of the meridional wind components.	$= \left[\frac{N \sum (w_i \cos \theta_i)^2 - (\sum w_i \cos \theta_i)^2}{N(N-1)} \right]^{1/2}$
10.	r	Correlation of the zonal to the meridional components.	$= \frac{N \sum (w_i \cos \theta_i) (w_i \sin \theta_i) - (\sum w_i \cos \theta_i) (\sum w_i \sin \theta_i)}{N(N-1) S_x S_y}$
11.	Ψ	Angle of rotation of elliptic axes of wind distribution measured in degrees counter clockwise from the east-west axis; 090° (N), 180° (W), 270° (S) and 0° (E).	$\tan 2\Psi = 2 r S_x S_y / (S_x^2 - S_y^2)$
12.	S_a	Standard deviation of the wind components along the major axis of the ellipse.	$= \sqrt{k_1}$; $k_1 > k_2$; $\begin{vmatrix} S_x^2 - k & S_x S_y r \\ S_x S_y r & S_y^2 - k \end{vmatrix} = 0$
13.	S_b	Standard deviation of the wind components along the minor axis of the ellipse.	$= \sqrt{k_2}$; $\begin{vmatrix} S_x^2 - k & S_x S_y r \\ S_x S_y r & S_y^2 - k \end{vmatrix} = 0$
14.	S_v/S_s	Ratio of the standard vector deviation to the square root of the difference between the squares of the scalar and vector means.	$= \left[\left(\frac{\sum w_i }{N} \right)^2 - \left(\frac{(\sum w_i)^2}{N} \right) \right]^{1/2}$
15.	N	Number of observations used.	

Note: The minus sign is placed after the number to which it applies.
Wind speed units are in knots.

Table 2. List of stations by geographical area

NORTH AMERICA

1. Alaska

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>850 mb. level</u>	<u>Period of Record 700 & 500 mb.</u>	<u>300 & 200 mb.</u>
Adak	51° 53'	176° 40' W	0300	May '48-Jun '50 Aug '50-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Anchorage	61° 13'	149° 50' W	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Annette I.	55° 04'	131° 33' W	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Barrow	71° 20'	156° 24' W	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Dutch Harbor	53° 53'	166° 32' W	0300	May '48-May '50 Jul '50-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Kodiak	57° 45'	152° 31' W	0300	Jun '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Nome	64° 31'	165° 26' W	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Shemya	52° 43'	174° 06' E	0300	May '48-Aug '49 Dec '49-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Yakutat	59° 31'	139° 40' W	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53

2. CANADA

Aklavik, N.W.T.	68° 14'	135° 00' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Argentia, Nfld.	47° 19'	053° 59' W	1500	May '48-Mar '53	May '48-Apr '53	Dec '48-Apr '53
Cambridge Bay, N.W.T.	69° 07'	105° 01' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Chesterfield, N.W.T.	63° 20'	090° 43' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Churchill, Man.	58° 45'	094° 04' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Clyde River, N.W.T.	70° 27'	068° 33' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Edmonton, Alta.	53° 34'	113° 31' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Eureka, N.W.T.	80° 00'	085° 56' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Fort Chimo, Que.	58° 06'	068° 26' W	1500		Apr '49-Mar '54	Apr '54-Mar '54
Fort Nelson, B. C.	58° 50'	122° 35' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Fort Smith, N.W.T.	60° 01'	111° 58' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Frobisher, Baffin I.	63° 45'	068° 33' W	1500	May '48-Sep '52	May '48-Apr '53	Dec '48-Apr '53

2. CANADA (Cont'd.)

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>850 mb. level</u>	<u>Period of Record 700 & 500 mb.</u>	<u>300 & 200 mb.</u>
Goose Bay, Lab.	53° 20'	060° 25' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Lake Nitchequon, Que.	53° 12'	070° 35' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
McMurray, Alta.	56° 39'	119° 09' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Moosonee, Ont.	51° 16'	080° 39' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Mould Bay, N.W.T.	76° 14'	119° 20' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Norman Wells, N.W.T.	65° 18'	126° 51' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Port Harrison, Que.	58° 27'	078° 08' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Prince Albert, Sask.	53° 10'	105° 45' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Prince George, B. C.	53° 53'	122° 41' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Resolute Bay, N.W.T.	74° 43'	094° 59' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Sable I., N.S.	43° 56'	060° 02' W	1500	Apr '50-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Stephenville, Nfld.	48° 32'	058° 33' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
The Pas, Man.	53° 58'	101° 06' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Trout Lake, Ont.	53° 50'	089° 52' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Watson Lake, Y. T.	60° 08'	128° 47' W	1500		Apr '49-Mar '54	Apr '49-Mar '54

3. UNITED STATES

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>Period of Record ALL LEVELS</u>
Albuquerque, N. Mex.	35° 03'	106° 37' W	1500	Oct '47-Dec '52
Big Spring, Tex.	32° 14'	101° 30' W	1500	Oct '47-Dec '52
Billings, Mont.	45° 48'	108° 32' W	1500	Oct '47-Dec '52
Bismarck, N. Dak.	46° 46'	100° 45' W	1500	Oct '47-Dec '52
Boise, Idaho	43° 34'	116° 13' W	1500	Oct '47-Dec '52
Brownsville, Tex.	25° 54'	097° 26' W	1500	Oct '47-Dec '52

3. UNITED STATES (Cont'd.)

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>Period of Record ALL LEVELS</u>
Burrwood, La.	28° 58'	089° 22' W	1500	Oct '47-Dec '52
Caribou, Maine	46° 52'	068° 01' W	1500	Oct '47-Dec '52
Charleston, S. C.	32° 54'	080° 02' W	1500	Oct '47-Dec '52
Columbia, Mo.	38° 58'	092° 22' W	1500	Oct '47-Dec '52
Denver, Colo. (Lowry AFB)	39° 43'	104° 54' W	1500	Oct '47-Dec '52
El Paso, Tex.	31° 48'	106° 24' W	1500	Apr '49-Mar '54
Ft. Worth, Tex. (Carswell AFB)	32° 46'	097° 27' W	1500	Oct '47-Dec '52
Grand Junction, Colo.	39° 06'	108° 32' W	1500	Oct '47-Dec '52
Green Bay, Wis.	44° 29'	088° 08' W	1500	Oct '47-Dec '52
Greensboro, N. C.	36° 05'	079° 57' W	1500	Oct '47-Dec '52
Hatteras, N. C.	35° 13'	075° 41' W	1500	Oct '47-Dec '52
International Falls, Minn.	48° 34'	093° 23' W	1500	Oct '47-Dec '52
			<u>850,700,500 mb.</u>	<u>300&200 mb.levels</u>
Jacksonville, Fla.	30° 35'	081° 39' W	1500	May '48-Apr '53 Dec '48-Apr '53
Las Vegas, Nev. (Nellis AFB)	36° 15'	115° 02' W	1500	Oct '47-Dec '52
Little Rock, Ark.	34° 44'	092° 14' W	1500	Oct '47-Dec '52
Medford, Oreg.	42° 22'	122° 52' W	1500	Oct '47-Dec '52
Miami, Fla.	25° 49'	080° 17' W	1500	Oct '47-Dec '52
Montgomery, Ala. (Maxwell AFB)	32° 23'	086° 21' W	1500	Oct '47-Dec '52
Mt. Clemens, Mich. (Selfridge AFB)	42° 36'	082° 49' W	1500	Oct '47-Dec '52
Nantucket, Mass.	41° 15'	070° 04' W	1500	Oct '47-Dec '52
Nashville, Tenn.	36° 07'	086° 41' W	1500	Oct '47-Dec '52
New York, N. Y.	40° 46'	073° 52' W	1500	Oct '47-Dec '52
			<u>850,700,500 mb.</u>	<u>300 & 200 levels</u>
Norfolk, Va.	36° 53'	076° 12' W	1500	May '48-Apr '53 Dec '48-Apr '53
Oakland, Calif.	37° 44'	122° 12' W	0300	May '48-Apr '53 Dec '48-Apr '53

3. UNITED STATES (Cont'd.)

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>Period of Record ALL LEVELS</u>
Ogden, Utah (Hill AFB)	41° 07'	111° 58' W	1500	Oct '47-Dec '52
Oklahoma City, Okla.	35° 24'	097° 36' W	1500	Oct '47-Dec '52
Omaha, Nebr.	41° 18'	095° 54' W	1500	Oct '47-Dec '52
Rantoul, Ill. (Chanute AFB)	40° 18'	088° 09' W	1500	Oct '47-Dec '52
Rapid City, S. Dak.	44° 02'	103° 03' W	1500	Oct '47-Dec '52
Rome, N. Y. (Griffis AFB)	43° 14'	075° 25' W	1500	Oct '47-Dec '52
San Antonio, Tex.	29° 32'	098° 28' W	1500	Oct '47-Dec '52
San Diego, Calif.	32° 44'	117° 10' W	1500	Oct '47-Sep '50
Santa Maria, Calif.	34° 56'	120° 25' W	1500	Oct '47-Dec '52
Sault Ste. Marie, Mich.	46° 28'	084° 22' W	1500	Oct '47-Dec '52
Spokane, Wash.	47° 37'	117° 31' W	1500	Oct '47-Dec '52
St. Cloud, Minn.	45° 35'	094° 11' W	1500	Oct '47-Dec '52
Tatoosh, Wash.	48° 23'	124° 44' W	1500	Oct '47-Dec '52
Tucson, Ariz. (Davis-Monthan AFB)	32° 11'	110° 53' W	1500	Oct '47-Dec '52
Washington, D. C.	38° 50'	077° 02' W	1500	Oct '47-Dec '52
Selected Point	40° 40'	082° 00' W	1500	Oct '47-Dec '52
Selected Point	37° 20'	112° 20' W	1500	Oct '47-Dec '52

4. MEXICO

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>Period of Record ALL LEVELS</u>		
Guaymas, Son.	27° 52'	110° 54' W	1500	Apr '49-Mar '54		
Mazatlan, Sin.	23° 11'	106° 26' W	1500	Apr '49-Mar '54		
				<u>850 mb. level</u>	<u>700 & 500 mb.</u>	<u>300 & 200 mb.</u>
Merida, Yuc.	20° 56'	089° 41' W	1500	Apr '50-Apr '53	May '48-Apr '53	Dec '48-Apr '53
				<u>ALL LEVELS</u>		
Mexico City, D. F.	19° 26'	099° 05' W	1500	Apr '49-Mar '54		

5. CARIBBEAN

Balboa, Canal Zone	08° 58'	079° 35' W	1500	Apr '49-Mar '54		
Cayenne, French Guiana	04° 50'	052° 22' W	0300	Aug '49-Oct '50 Dec '50-Mar '54		
				<u>850 mb. level</u>	<u>700 & 500 mb.</u>	<u>300 & 200 mb.</u>
Guantanamo, Cuba	19° 54'	075° 09' W	1500	May '48-Mar '53	May '48-Apr '53	Dec '48-Apr '53
Havana, Cuba	23° 09'	082° 21' W	1500	May '48-Jan '53	May '48-Apr '53	Dec '48-Apr '53
San Juan, Puerto Rico	18° 28'	066° 07' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Swan Island, West Indies	17° 24'	083° 56' W	1500	Apr '49-Mar '54	Apr '49-Mar '54	Apr '49-Mar '54

6. ATLANTIC STATIONS

Bermuda, U. K.	32° 22'	064° 40' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Keflavik, Iceland	63° 57'	022° 37' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Lagens, Azores	38° 45'	027° 05' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "A"	62° 00'	033° 00' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "B"	56° 30'	051° 00' W	1500	May '48-Jul '48 Sep '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "C"	52° 45'	035° 30' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "D"	44° 00'	041° 00' W	1500	Jan '49-Apr '53	May '48-Apr '53	Dec '48-Apr '53

6. ATLANTIC STATIONS (Cont'd.)

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>850 mb. level</u>	<u>Period of Record 700 & 500 mb.</u>	<u>300 & 200 mb.</u>
Ocean Station "E"	35° 00'	048° 00' W	1500	Sep '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "H"	36° 40'	069° 35' W	1500	May '49-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "I"	39° 00'	019° 00' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "J"	52° 30'	020° 00' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "K"	45° 00'	016° 00' W	1500	May '48-Nov '48 Jun '49-Dec '50	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "M"	66° 00'	002° 00' E	1500	Jun '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53

EUROPE

7. GREENLAND

Danmarkshavn	76° 46'	018° 46' W			1951-2, 55-57	
Kap Tobin	70° 25'	021° 58' W			1951-2, 55-57	
Narssarssuak	61° 11'	045° 25' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Thule	76° 05'	069° 00' W	1500	Apr '49-Mar '54	Apr '49-Mar '54	Apr '49-Mar '54

8. GREAT BRITAIN AND IRELAND

Crawley, England	51° 05'	000° 13 W	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Larkhill, England	51° 11'	001° 48' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Lerwick, Scotland	60° 08'	001° 11' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Stornoway, Scotland	58° 13'	006° 20' W	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Valentia, Ireland	51° 56'	010° 15' W	1500	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53

9. NORWAY

Gardermoen	60° 12'	011° 05' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Tromso	69° 42'	019° 01' E	0300	Apr '49-Mar '54	Apr '49-Mar '54	Apr '49-Mar '54

10. SWEDEN

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>850 mb. level</u>	<u>Period of Record 700 & 500 mb.</u>	<u>300 & 200 mb.</u>
Stockholm	59° 21'	017° 57' E	0300	Apr '49-Mar '54	Apr '49-Mar '54	Apr '49-Mar '54

11. FRANCE

Bordeaux	44° 50'	000° 43' W	1500		May '48-Apr '53	Dec '48-Apr '53
Brest	48° 27'	004° 25' W	1500		May '48-Apr '53	Dec '48-Apr '53
Nimes	43° 52'	004° 24' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56

12. GERMANY

Berlin	52° 29'	013° 24' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
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13. PORTUGAL

Funchal, Madeira Is.	32° 38'	016° 54' W	1500		Apr '49-Mar '54	Apr '49-Mar '54
Lisbon (Portela)	38° 46'	009° 09' W	1500		May '48-Apr '53	Dec '48-Apr '53
Sal, Cape Verde Is.	16° 44'	022° 57' W	1500	Jan '51-Jan '57	Jan '51-Jan '57	Jan '51-Jan '57

14. GREECE

Athens	37° 58'	023° 43' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
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AFRICA

15. NORTH AFRICA

Aoulef, Algeria	26° 58'	001° 05' E	1400	Dec '49-Dec '56	Dec '49-Dec '56	Dec '49-Dec '56
Cairo, Egypt	30° 08'	031° 24' E	1500	Dec '49-Dec '56	Dec '49-Dec '56	Dec '49-Dec '56
Dakar, Senegal	14° 40'	017° 26' W	0600	Jul '49-Sep '54 Jan '55 Jul '55-Aug '56	Jul '49-Sep '54 Jan '55 Jul '55-Aug '56	Jul '49-Sep '54 Jan '55 Jul '55-Aug '56
Khartoum, Sudan	15° 36'	032° 33' E	0600	Dec '50-Dec '56	Dec '50-Dec '56	Dec '50-Dec '56
Lagos, Nigeria	06° 35'	003° 20' E	0600	Jan '53-Jun '53 Sep '53-Jul '56 Sep '56-Dec '56	Jan '53-Jun '53 Sep '53-Jul '56 Sep '56-Dec '56	Jan '53-Jun '53 Sep '53-Jul '56 Sep '56-Dec '56
Nairobi, Br. E. Africa	01° 16'S	036° 45' E	0600	Jul '49-Sep '54	Jul '49-Sep '54	Jul '49-Sep '54

15. NORTH AFRICA (Cont'd.)

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>850 mb. level</u>	<u>Period of Record 700 & 500 mb.</u>	<u>300 & 200 mb.</u>
Niamey, Fr. Niger	13° 29'	002° 10' E	0600	Dec '50-Dec '56	Dec '50-Dec '56	Dec '50-Dec '56
Port Lyautey, Morocco	34° 16'	006° 40' W	1500	May '48-Dec '48 Feb '49-Apr '53	May '48-Apr '53	Dec '48-Apr '53

ASIA

16. USSR

Ashkhabad	37° 58'	058° 20' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Irkutsk	52° 16'	104° 19' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Kharkov	49° 56'	036° 17' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Petropavlovsk (Nakamchatke)	52° 58'	158° 45' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Saratov	51° 34'	046° 02' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Sverdlovsk	56° 48'	060° 38' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Yakutsk	62° 01'	129° 43' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Mys Chelyuskin	77° 43'	104° 17' E	1500		1951-2, 55-57	
Mys Zhelania	76° 45'	069° 00' E	1500		1951-2, 55-57	
Khatanga	71° 59'	102° 28' E	1500		1951-2, 55-57	
Bukhta Tiksi	71° 35'	128° 55' E	1500		1951-2, 55-57	
Ostrov Chetyrekh- Stolbovoy	70° 38'	162° 24' E	1500		1951-2, 55-57	
Turukhansk	65° 47'	87° 57' E	1500		1951-2, 55-57	

17. HONG KONG

Hong Kong	22° 18'	114° 10' E	0300	Jan '50-Apr '55 Jun '55-Dec '55	Jan '50-Apr '55 Jun '55-Dec '55	Jan '50-Apr '55 Jun '55-Dec '55
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18. JAPAN

Fukuoka	33° 35'	130° 23' E	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Furumaki	40° 41'	141° 22' E	0300	May '48-Oct '52 Dec '52-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Tateno	36° 03'	140° 08' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56
Tokyo	35° 41'	139° 46' E	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Wakkanai	45° 25'	141° 41' E	0300	Jan '51-Dec '56	Jan '51-Dec '56	Jan '51-Dec '56

19. ARABIAN PENINSULA

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>850 mb. level</u>	<u>Period of Record 700 & 500 mb.</u>	<u>300 & 200 mb.</u>
Aden, Br. Prot.	12° 50'	045° 01' E	0300	Jan '51-Oct '55	Jan '51-Oct '55	Jan '51-Oct '55
Bahrein, Arabia	26° 16'	050° 37' E	0300	Jan '51-Oct '55	Jan '51-Oct '55	Jan '51-Oct '55

20. IRAQ

Habbaniya	33° 22'	043° 34' E	0300	Jan '51-Oct '55	Jan '51-Oct '55	Jan '51-Oct '55
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21. INDIA

Calcutta	22° 39'	088° 27' E	0300	Jan '44-Dec '48	Jan '44-Dec '48	Jan '44-Dec '48
Trivandrum	08° 29'	076° 57' E	0300	Jan '44-Dec '48	Jan '44-Dec '48	Jan '44-Dec '48
Veraval	20° 54'	070° 22' E	0300	Jan '44-Dec '48	Jan '44-Dec '48	Jan '44-Dec '48

22. KOREA

Seoul	37° 34'	126° 58' E	0300	May '48-Oct '48 Oct '50-May '53	May '48-Apr '53	Dec '48-Apr '53
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23. PHILIPPINES

Angeles, Luzon	15° 10'	120° 34' E	0300	Nov '48-Oct '54	Nov '48-Oct '54	Nov '48-Oct '54
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24. MALAYA

Singapore	01° 21'	103° 54' E	0300	Oct '49-Dec '54	Oct '49-Dec '54	Oct '49-Dec '54
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25. PACIFIC STATIONS

Guam, Marianas Is.	13° 31'	144° 49' E	0300	May '48-Mar '52 Jun '52-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Honolulu, Oahu, T. H.	21° 20'	157° 55' W	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Iwo Jima	24° 47'	141° 20' E	0300	May '48-Apr '51 Aug '51 Dec '51-Feb '52	May '48-Apr '53	Dec '48-Apr '53
Johnston I.	16° 44'	169° 32' W	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Koror, Caroline Is.	07° 21'	134° 29' E	0300	Nov '49-Jun '55	Nov '49-Jun '55	Nov '49-Jun '55
Kwajalein, Marshall Is.	08° 43'	167° 44' E	0300	Jan '49-Dec '54	Jan '49-Dec '54	Jan '49-Dec '54

25. PACIFIC STATIONS (Cont'd.)

	<u>Latitude N</u>	<u>Longitude</u>	<u>Hour (GMT)</u>	<u>850 mb. level</u>	<u>Period of Record 700 & 500 mb.</u>	<u>300 & 200 mb.</u>
Marcus I.	24° 17'	153° 58' E	0300	Nov '51-Mar '52 May '52-Jun '52	May '48-Apr '53	Dec '48-Apr '53
Midway I.	28° 13'	177° 23' W	0300	May '48-Feb '49 Apr '49-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Okinawa I.	26° 12'	127° 39' E	0300	May '48-Aug '48 Oct '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Truk, Caroline Is.	07° 27'	151° 50' E	0300	Jul '51-Jun '55	Jul '51-Jun '55	Jul '51-Jun '55
Wake Island	19° 17'	166° 39' E	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "N"	32° 30'	135° 00' W	0300	May '48-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "P"	50° 00'	145° 00' W	0300	Sep '48-Mar '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "Q"	43° 00'	167° 00' W	0300	Apr '52-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "S"	48° 00'	162° 00' W	0300	Sep '50-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "U"	27° 40'	145° 00' W	0300	Dec '50-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "V"	31° 00'	164° 00' E	0300	Nov '50-Apr '53	May '48-Apr '53	Dec '48-Apr '53
Ocean Station "X"	39° 00'	153° 00' E	0300	Nov '51-Dec '51 Feb '52-Mar '52 May '52-Jun '52	May '48-Apr '53	Dec '48-Apr '53
Selected Point	40° 00'	150° 00' W	0300		May '48-Apr '53	Dec '48-Apr '53
Selected Point	40° 00'	175° 00' E	0300		May '48-Apr '53	Dec '48-Apr '53

Chesterfield, N.W.T., Canada

P	J	$\bar{\theta}$	$\sqrt{V}$	S_v	$\bar{x}$	S_x	$\bar{y}$	S_y	r	ψ	S_a	S_b	S_v/S_s	N
700	12	309	9.900	16.609	7.662-	11.600	6.270	11.887	.024-	112.5	11.983	11.501	1.139	450
700	03	298	6.898	17.893	6.115-	13.153	3.193	12.131	.123-	151.0	13.457	11.690	1.130	459
700	06	322	9.103	16.850	5.618-	11.966	7.162	11.863	.067	41.5	12.330	11.484	1.136	455
700	09	308	10.450	17.070	8.188-	12.008	6.494	12.133	.071-	131.0	12.494	11.632	1.145	454
500	12	303	15.612	24.169	13.095-	18.003	8.501	16.126	.001	0.5	18.001	16.128	1.200	450
500	03	292	12.053	24.914	11.149-	17.576	4.580	17.658	.155-	134.0	18.933	16.194	1.120	449
500	06	316	12.618	20.972	8.751-	14.709	9.090	14.949	.056	52.5	15.251	14.396	1.139	457
500	09	306	17.410	22.877	13.997-	15.435	10.354	16.886	.034-	100.5	16.925	15.392	1.184	454
300	12	301	20.809	29.216	17.822-	21.287	10.741	20.011	.111-	149.0	21.918	19.318	1.206	447
300	03	287	17.288	33.180	16.559-	23.252	4.969	23.669	.231-	133.0	26.053	20.546	1.152	457
300	06	314	17.601	30.536	12.616-	21.323	12.273	21.858	.016	73.5	21.855	21.326	1.136	460
300	09	304	26.675	32.752	22.201-	20.893	20.893	25.223	.002-	90.5	25.223	20.893	1.167	453
200	12	031	26.674	26.674	17.198-	19.230	10.453	18.486	.041-	156.0	19.413	18.294	1.223	449
200	03	288	15.197	26.746	14.438-	18.686	4.741	19.136	.015-	130.5	20.338	17.369	1.153	457
200	06	312	15.821	28.220	11.725-	19.869	10.623	20.040	.115	46.5	21.065	18.779	1.149	458
200	09	307	26.114	28.795	20.872-	18.632	15.694	21.954	.015-	92.5	21.956	18.630	1.211	454

Churchill, Man., Canada

700	12	305	14.850	19.355	12.158-	13.845	8.525	13.524	.014	15.5	13.872	13.497	1.210	451
700	03	303	9.379	20.350	7.848-	13.982	5.137	14.785	.052-	111.5	14.932	13.825	1.147	460
700	06	308	11.790	17.632	9.259-	12.560	7.300	12.375	.033-	147.0	12.695	12.237	1.182	460
700	09	303	12.546	19.730	10.563-	13.679	6.770	14.219	.013-	99.5	14.234	13.664	1.164	455
500	12	301	23.667	26.635	20.183-	19.136	12.360	18.527	.030	22.0	19.250	18.409	1.241	452
500	03	296	15.420	28.131	13.908-	19.776	6.659	20.007	.103-	132.0	20.897	18.833	1.157	460
500	06	300	17.581	22.429	15.244-	16.353	8.757	15.350	.023-	169.5	16.386	15.314	1.238	460
500	09	303	21.430	26.797	17.903-	17.437	11.777	20.348	.124-	109.5	20.729	16.983	1.195	455
300	12	296	31.765	31.504	28.500-	21.261	14.027	23.249	.077	69.5	23.553	20.923	1.228	451
300	03	287	21.947	37.340	20.969-	26.022	6.480	26.780	.190-	130.5	28.830	23.730	1.190	460
300	06	295	26.293	34.154	23.783-	24.470	11.211	23.826	.015-	164.5	24.522	23.773	1.262	460
300	09	296	33.023	38.632	29.651-	25.056	14.537	29.405	.039	83.0	29.466	24.985	1.208	455
200	12	295	32.247	28.335	29.124-	19.603	13.843	20.459	.056	63.5	20.734	19.312	1.309	449
200	03	287	21.078	27.981	20.146-	20.043	6.199	19.525	.194-	139.0	21.637	17.742	1.263	460
200	06	292	25.655	30.565	23.869-	21.610	9.406	21.617	.098	45.0	22.655	20.519	1.284	460
200	09	298	33.618	33.354	29.706-	22.169	15.740	24.921	.036	81.5	24.982	22.100	1.220	454

Clyde River, N.W.T., Canada

700	12	171	5.393	18.620	0.857	13.556	5.324-	12.765	.229-	142.5	14.643	11.502	1.160	451
700	03	249	5.450	19.065	5.101-	13.233	1.922-	13.724	.154-	128.5	14.513	12.363	1.168	460
700	06	172	3.366	17.522	0.464	12.381	3.334-	12.398	.274-	135.0	13.987	10.553	1.188	458
700	09	210	4.757	19.329	2.410-	14.083	4.101-	13.238	.161-	145.5	14.800	12.432	1.167	455
500	12	176	10.063	28.191	0.631	20.065	10.043-	19.803	.266-	136.5	22.440	17.065	1.190	451
500	03	243	11.130	27.085	9.947-	18.056	4.992-	20.189	.096-	110.5	20.512	17.688	1.172	459
500	06	197	5.710	22.938	1.696-	15.166	5.452-	17.210	.180-	117.5	17.907	14.336	1.170	460
500	09	215	9.501	27.970	5.408-	18.555	7.812-	20.929	.135-	114.0	21.483	17.911	1.197	455
300	12	190	12.870	30.644	2.253-	22.344	12.671-	20.972	.143-	147.0	23.205	19.898	1.177	451
300	03	252	15.510	28.957	14.761-	19.692	4.761-	21.230	.108-	117.5	21.783	19.078	1.182	460
300	06	223	7.503	30.898	5.085-	21.225	5.516-	22.454	.145-	124.5	23.488	20.074	1.167	460
300	09	228	13.128	31.414	9.816-	22.009	8.717-	22.416	.145-	131.5	23.790	20.515	1.138	455
200	12	204	11.493	25.535	4.713-	18.459	10.483-	17.643	.148-	143.5	19.403	16.599	1.162	450
200	03	257	12.552	23.197	12.214-	15.499	2.894-	17.259	.167-	118.5	17.954	14.688	1.169	460
200	06	217	4.466	22.468	2.702-	14.740	3.556-	16.957	.103-	108.0	17.204	14.451	1.153	460
200	09	239	12.255	26.252	10.535-	18.857	6.260-	18.264	.211-	139.5	20.449	16.462	1.167	454

Edmonton, Alta, Canada

700	12	297	19.989	20.087	17.854-	13.343	8.988	15.016	.349-	125.5	16.604	11.306	1.223	451
700	03	296	11.074	19.997	9.602-	13.610	4.932	14.650	.301-	128.0	16.182	11.748	1.194	458
700	06	294	9.458	17.450	8.621-	11.818	3.891	12.838	.219-	124.5	13.704	10.802	1.196	461
700	09	295	17.377	20.182	15.777-	12.922	7.284	15.503	.162-	111.0	15.896	12.436	1.273	454
500	12	293	28.677	26.194	26.417-	19.073	11.159	17.954	.036	15.5	19.162	17.859	1.285	451
500	03	285	17.731	27.002	17.115-	17.663	4.634	20.423	.120-	110.0	20.802	17.215	1.196	460
500	06	281	13.983	21.360	13.743-	14.503	2.577	15.682	.000-	90.5	15.682	14.503	1.188	460
500	09	290	25.123	26.423	23.653-	16.931	8.466	20.285	.072	79.0	20.403	16.788	1.194	453
300	12	289	38.554	37.120	36.467-	25.653	12.512	26.830	.124	55.0	27.930	24.451	1.229	362
300	03	282	23.498	38.682	22.981-	24.465	4.906	29.923	.078-	100.5	30.101	24.245	1.143	308
300	06	269	21.289	32.832	21.288-	23.197	0.226-	23.235	.062	45.5	23.932	22.477	1.195	278
300	09	281	37.060	40.476	36.415-	26.380	6.886	30.698	.150	67.5	31.507	25.408	1.200	334
200	12	290	37.070	31.217	34.741-	20.129	12.930	23.860	.025-	94.5	23.880	20.106	1.304	361
200	03	275	21.054	31.470	20.961-	20.075	1.977	24.237	.128-	107.0	24.631	19.590	1.196	308
200	06	262	23.886	32.331	23.673-	20.353	3.184-	25.121	.104	77.0	25.370	20.042	1.216	278
200	09	280	35.373	34.409	34.879-	20.998	5.982	27.259	.198	71.5	27.949	20.071	1.188	334

Eureka, N.W.T., Canada

P	J	$\bar{\theta}$	$\bar{V}$	S_v	$\bar{x}$	S_x	$\bar{y}$	S_y	r	ψ	S_d	S_b	S_v/S_s	N
700	12	065	3.489	17.411	3.167	11.093	1.463	13.420	.104	75.5	13.568	10.911	1.167	449
700	03	028	3.853	17.399	1.804	11.753	3.404	12.830	.096	66.0	13.079	11.475	1.137	460
700	06	204	2.025	15.250	0.813	9.996	1.855	11.518	.085	74.5	11.635	09.859	1.149	460
700	09	056	2.343	16.028	1.933	10.545	1.323	12.070	.140	67.0	12.381	10.178	1.152	455
500	12	095	4.623	26.585	4.604	18.750	0.411	18.847	.056	47.5	19.323	18.259	1.147	451
500	03	018	4.930	25.365	1.533	17.818	4.686	18.052	.098	49.0	18.806	17.020	1.151	460
500	06	240	2.437	23.752	2.107	15.387	1.225	18.095	.019	86.5	18.104	15.376	1.150	459
500	09	018	1.997	22.821	0.608	16.046	1.902	16.227	.018	60.5	16.314	15.958	1.127	456
300	12	110	4.203	27.753	3.937	20.328	1.471	18.895	.070	22.0	20.598	18.601	1.141	451
300	03	342	4.848	28.243	1.480	20.506	4.617	19.421	.010	5.5	20.516	19.411	1.178	460
300	06	262	3.725	31.612	3.692	21.423	0.495	23.246	.026	99.0	23.290	21.375	1.134	460
300	09	340	1.346	27.957	0.467	19.690	1.263	19.846	.007	112.0	19.877	19.659	1.141	455
200	12	136	1.778	22.572	1.229	17.195	1.285	14.623	.098	164.5	17.394	14.386	1.129	450
200	03	301	5.366	20.168	4.617	15.575	2.734	12.813	.003	0.5	15.575	12.813	1.174	460
200	06	261	2.143	19.482	2.117	13.304	0.332	14.231	.007	93.0	14.233	13.301	1.139	460
200	09	285	2.779	20.297	2.687	14.034	0.710	14.663	.009	84.0	14.669	14.027	1.168	454

Fort Chimo, Que., Canada

700	12	256	13.288	20.642	12.918	14.558	3.111	14.633	.071	133.0	15.108	14.065	1.170	451
700	03	261	3.807	22.438	3.755	16.392	0.627	15.322	.064	158.0	16.588	15.110	1.144	459
700	06	269	9.254	19.957	9.252	14.310	0.199	13.911	.000	180.0	14.310	13.911	1.151	458
700	09	269	12.365	20.739	12.364	14.070	0.118	15.236	.050	74.0	15.339	13.958	1.142	454
500	12	251	20.557	29.051	19.490	20.181	6.534	20.897	.145	128.0	22.021	18.948	1.212	452
500	03	250	8.221	28.479	7.723	20.524	2.817	19.743	.124	143.5	21.410	18.779	1.146	459
500	06	270	13.898	24.803	13.898	17.097	0.001	17.969	.012	82.5	17.983	17.082	1.148	459
500	09	266	18.768	27.706	18.731	18.094	1.171	20.982	.070	77.5	21.124	17.928	1.186	455
300	12	247	28.153	34.518	25.904	24.970	11.026	23.833	.126	145.0	25.999	22.706	1.205	450
300	03	255	13.668	38.319	13.189	27.717	3.586	26.461	.206	141.5	29.827	24.057	1.139	460
300	06	272	21.538	36.246	21.524	24.996	0.784	26.249	.003	92.0	26.250	24.995	1.153	460
300	09	258	27.296	37.730	26.718	23.781	5.585	29.292	.079	100.5	29.465	23.567	1.193	455
200	12	244	28.468	31.882	25.553	22.750	12.549	22.336	.110	139.5	23.775	21.242	1.236	449
200	03	261	14.385	30.711	14.210	22.203	2.242	21.217	.158	143.0	23.434	19.849	1.147	460
200	06	277	22.298	32.738	22.152	22.559	2.546	23.725	.015	81.5	23.751	22.531	1.168	460
200	09	259	29.643	32.686	29.061	19.349	5.843	26.344	.031	87.0	26.359	19.328	1.190	453

Fort Nelson, B.C., Canada

700	12	288	11.650	17.724	11.084	12.765	3.589	12.297	.159	141.5	13.519	11.462	1.150	451
700	03	269	7.597	15.252	7.597	10.674	0.117	10.895	.209	132.0	11.867	09.582	1.142	460
700	06	294	5.757	13.588	5.264	9.851	2.330	9.358	.004	177.5	9.852	09.357	1.152	459
700	09	275	11.263	15.849	11.225	11.182	0.930	11.232	.150	134.0	12.020	10.330	1.169	455
500	12	287	19.494	24.801	18.686	16.343	5.552	18.655	.047	80.0	18.723	16.265	1.179	452
500	03	264	11.588	22.566	11.518	15.150	1.264	16.723	.132	116.5	17.217	14.587	1.128	460
500	06	285	6.690	17.795	6.448	12.450	1.785	12.714	.097	129.0	13.194	11.940	1.148	460
500	09	270	15.609	22.132	15.609	13.962	0.005	17.172	.075	80.0	17.265	13.847	1.144	455
300	12	290	27.109	32.919	25.541	20.175	9.086	26.012	.124	77.0	26.298	19.800	1.190	452
300	03	259	15.355	33.398	15.057	21.984	3.013	25.143	.154	114.5	25.905	21.081	1.126	460
300	06	276	7.654	30.317	7.610	21.129	0.813	21.742	.002	87.0	21.744	21.127	1.108	460
300	09	269	21.536	33.651	21.532	21.614	0.394	25.792	.007	91.0	25.794	21.612	1.140	455
200	12	294	25.886	27.999	23.644	16.898	10.537	22.325	.074	82.5	22.406	16.791	1.209	449
200	03	259	13.711	27.803	13.452	18.663	2.653	20.609	.048	103.0	20.712	18.548	1.137	460
200	06	273	8.394	28.335	8.382	19.230	0.457	20.810	.054	107.0	20.971	19.054	1.120	460
200	09	268	23.251	30.916	23.241	19.457	0.682	24.025	.045	84.0	24.071	19.400	1.148	454

Fort Smith, N.W.T., Canada

700	12	300	14.052	18.359	12.159	12.583	7.043	13.369	.071	115.0	13.571	12.365	1.180	450
700	03	288	8.103	16.682	7.720	11.222	2.460	12.344	.067	107.5	12.473	11.078	1.138	460
700	06	299	8.325	16.123	7.247	10.159	4.097	12.519	.022	86.5	12.520	10.159	1.158	459
700	09	292	12.397	17.066	11.488	11.674	4.660	12.448	.043	72.5	12.532	11.584	1.153	455
500	12	297	22.546	24.447	20.108	16.372	10.197	18.155	.027	97.5	18.196	16.327	1.192	450
500	03	287	14.877	22.322	14.243	15.013	4.298	16.519	.010	93.0	16.518	15.014	1.143	450
500	06	297	11.801	20.009	10.483	12.172	5.419	15.881	.104	100.5	16.002	12.014	1.148	460
500	09	291	19.084	23.594	17.802	15.645	6.877	17.661	.019	85.0	17.658	15.647	1.178	454
300	12	299	30.337	31.950	26.404	19.906	14.937	24.991	.036	85.0	25.013	19.878	1.208	450
300	03	284	19.871	34.221	19.320	21.799	4.649	26.380	.051	97.5	26.463	21.698	1.141	457
300	06	293	17.219	31.115	15.871	20.146	6.677	23.713	.071	102.0	23.860	19.972	1.146	460
300	09	287	26.012	34.371	24.829	22.022	7.757	26.390	.042	83.0	26.448	21.952	1.149	455
200	12	298	27.338	27.569	24.199	17.725	12.719	21.116	.048	97.5	21.166	17.666	1.203	449
200	03	282	16.908	29.114	16.515	18.832	3.623	22.203	.078	102.5	22.366	18.639	1.156	457
200	06	292	14.010	29.006	12.946	18.731	5.356	22.147	.017	86.5	22.148	18.730	1.126	458
200	09	286	25.869	32.007	24.818	20.635	7.301	24.467	.031	84.5	24.497	20.599	1.163	454

Moosonee, Ont., Canada

P	J	$\bar{\theta}$	$ \bar{V} $	S_y	$\bar{x}$	S_x	$\bar{y}$	S_y	r	ψ	S_d	S_b	S_y/S_b	N
700	12	278	19.259	21.660	19.081-	15.323	2.611	15.310	.013	43.0	15.416	15.216	1.166	449
700	03	291	9.581	22.603	8.918-	16.333	3.500	15.623	.023-	166.0	16.378	15.576	1.128	460
700	06	284	18.037	18.027	17.534-	11.999	4.230	13.453	.125	66.0	13.780	11.622	1.187	459
700	09	277	18.180	21.650	18.028-	14.530	2.344	16.051	.092	68.5	16.311	14.238	1.155	455
500	12	276	31.883	30.728	31.685-	21.198	3.538	22.245	.071	62.0	22.644	20.772	1.233	451
500	03	288	16.862	29.153	16.014-	20.921	5.281	20.303	.109-	142.5	21.757	19.405	1.128	460
500	06	283	26.443	22.277	25.725-	14.854	6.119	16.601	.123	66.0	17.003	14.392	1.211	460
500	09	278	27.064	30.414	26.826-	19.854	3.582	23.040	.061	79.0	23.162	19.712	1.161	455
300	12	276	44.360	41.179	44.123-	28.181	4.576	30.026	.001	89.5	30.026	28.181	1.261	449
300	03	285	25.321	40.104	24.462-	27.314	6.541	29.365	.133-	120.5	30.429	26.123	1.152	460
300	06	283	36.850	34.093	35.895-	21.301	8.334	26.620	.035	85.5	26.650	21.264	1.173	460
300	09	279	38.063	41.930	37.615-	25.866	5.822	33.000	.010	89.0	33.003	25.862	1.168	455
200	12	272	43.448	35.541	43.413-	24.417	1.735	25.825	.140	56.0	26.960	23.158	1.291	449
200	03	279	23.328	33.411	23.053-	22.695	3.568	24.521	.143-	121.0	25.476	21.617	1.160	459
200	06	282	35.893	34.237	35.085-	22.204	7.573	26.060	.037	83.5	26.109	22.147	1.166	460
200	09	276	39.103	38.857	38.906-	24.226	3.920	30.381	.026	86.5	30.399	24.203	1.187	454

Mould Bay, N.W.T., Canada

700	12	336	6.349	16.515	2.609-	10.543	5.788	12.711	.016-	92.5	12.715	10.538	1.136	451
700	03	324	4.010	16.447	2.346-	11.850	3.251	11.405	.086-	147.0	12.165	11.068	1.140	460
700	06	302	8.157	15.701	6.917-	11.329	4.323	10.870	.070	30.0	11.547	10.638	1.172	459
700	09	317	7.717	15.610	5.274-	10.869	5.635	11.203	.011	80.0	11.214	10.857	1.159	455
500	12	329	9.070	23.238	4.737-	14.994	7.736-	17.754	.196-	114.5	18.416	14.174	1.132	451
500	03	309	8.002	22.911	6.254-	15.850	4.991	15.702	.133-	137.0	16.796	14.686	1.140	460
500	06	305	12.133	19.548	9.958-	13.800	6.931	13.844	.041	47.0	14.107	13.531	1.177	460
500	09	302	12.858	20.043	10.945-	13.874	6.749	14.466	.048	65.5	14.618	13.714	1.160	455
300	12	321	12.270	26.302	7.736-	17.839	9.524	19.328	.207	55.5	20.558	16.406	1.132	450
300	03	292	12.363	26.012	11.427-	18.777	4.720	18.001	.035-	160.0	18.893	17.879	1.150	460
300	06	296	18.331	26.441	16.489-	19.000	8.010	18.388	.061	31.0	19.333	18.037	1.194	461
300	09	291	18.155	21.106	16.997-	14.208	6.380	15.608	.067	72.0	15.760	14.039	1.227	455
200	12	313	14.608	23.443	10.766-	16.121	9.873	17.020	.273	50.5	18.740	14.085	1.170	449
200	03	287	12.634	20.074	12.064-	14.974	3.751	13.370	.017	4.5	14.983	13.360	1.161	460
200	06	293	14.879	20.416	13.731-	15.103	5.730	13.737	.110	24.5	15.448	13.348	1.187	461
200	09	291	18.155	21.106	16.997-	14.208	6.380	15.608	.067	72.0	15.760	14.039	1.227	455

Norman Wells, N.W.T., Canada

700	12	296	8.546	16.442	7.663-	11.233	3.782	12.006	.052-	109.0	12.118	11.112	1.142	450
700	03	263	6.830	14.005	6.782-	9.684	0.805-	10.118	.117-	125.0	10.508	09.260	1.134	459
700	06	295	6.371	12.657	5.782-	8.899	2.677	9.000	.211-	133.5	9.855	07.942	1.178	457
700	09	268	9.134	13.574	9.125-	9.351	0.397-	9.840	.068-	117.0	10.003	09.175	1.161	455
500	12	295	15.452	22.885	13.987-	14.889	6.567	17.380	.042	82.0	17.426	14.835	1.155	450
500	03	264	11.680	20.957	11.621-	13.868	1.170-	15.712	.094-	108.5	15.933	13.614	1.123	450
500	06	288	8.627	17.710	8.218-	12.168	2.625	12.868	.242-	128.5	13.995	10.853	1.170	458
500	09	267	14.146	18.829	14.129-	12.050	0.680-	14.469	.024	85.5	14.485	12.031	1.197	455
300	12	300	21.381	30.873	18.561-	19.384	10.612	24.029	.105	76.5	24.262	19.092	1.169	447
300	03	263	15.955	29.867	15.840-	19.054	1.908-	23.000	.147-	109.0	23.482	18.456	1.134	457
300	06	279	11.196	26.964	11.042-	18.326	1.847	19.779	.159-	122.0	20.695	17.286	1.137	460
300	09	266	20.764	28.524	20.710-	17.943	1.499-	22.174	.024	86.5	22.194	17.918	1.164	455
200	12	296	21.338	28.404	19.170-	17.104	9.370	22.676	.153	75.5	22.997	16.670	1.187	449
200	03	253	14.538	24.399	13.898-	16.713	4.265-	17.776	.174-	125.5	18.791	15.563	1.130	457
200	06	266	9.551	24.815	9.527-	17.323	0.673-	17.768	.138-	130.0	18.735	16.272	1.116	459
200	09	263	21.217	25.203	21.075-	15.089	2.452-	20.187	.006	89.0	20.187	15.089	1.163	454

Port Harrison, Que., Canada

700	12	277	12.803	18.111	12.703-	12.691	1.591	12.922	.079-	128.5	13.303	12.290	1.165	450
700	03	299	6.205	19.138	5.426-	13.672	3.010	13.392	.105-	140.0	14.238	12.789	1.113	459
700	06	293	10.546	18.219	9.717-	13.083	4.100	12.679	.006-	174.0	13.083	12.679	1.137	457
700	09	289	12.031	18.915	11.381-	13.482	3.903	13.267	.034	32.5	13.610	13.136	1.135	453
500	12	274	18.805	24.958	18.755-	18.962	1.369	16.228	.000-	179.5	18.961	16.229	1.201	450
500	03	289	10.926	26.607	10.301-	18.256	3.642	19.356	.161-	125.0	20.361	17.128	1.129	449
500	06	291	17.407	22.330	16.224-	15.063	6.308	16.484	.029	80.5	16.523	15.020	1.147	457
500	09	283	19.077	26.524	18.568-	17.506	4.378	19.927	.075-	105.0	20.112	17.293	1.177	454
300	12	271	25.147	31.719	25.139-	22.286	0.607	22.571	.159-	132.5	24.174	20.536	1.226	447
300	03	283	17.380	35.420	16.917-	24.812	3.984	25.278	.196-	132.5	27.388	22.461	1.148	457
300	06	287	26.877	32.825	25.650-	22.356	8.027	24.034	.087	64.5	24.509	21.835	1.161	460
300	09	286	28.163	35.568	27.019-	22.825	7.944	27.278	.103-	105.0	27.602	22.433	1.176	455
200	12	271	26.410	29.757	26.404-	21.068	0.545	21.015	.124-	135.0	22.333	19.666	1.264	449
200	03	282	17.737	29.014	17.360-	20.622	3.638	20.409	.172-	136.0	22.226	18.650	1.187	457
200	06	287	27.273	29.715	26.098-	20.733	7.922	21.288	.056	57.0	21.636	20.369	1.202	458
200	09	283	29.739	31.959	29.013-	19.860	6.532	25.039	.014-	91.5	25.040	19.859	1.168	454

Prince Albert, Sask., Canada

P	J	$\bar{\theta}$	$\overline{IV}$	S_v	$\bar{x}$	S_x	$\bar{y}$	S_y	r	ψ	S_a	S_b	S_v/S_s	N
700	12	296	19.263	16.951	17.305-	10.276	8.463	13.481	.202-	108.0	13.819	09.817	1.226	450
700	03	292	9.988	17.983	9.276-	12.188	3.704	13.223	.161-	121.5	13.815	11.513	1.131	459
700	06	285	11.701	16.633	11.322-	10.883	2.955	12.579	.164-	114.5	12.975	10.407	1.161	456
700	09	293	17.380	17.013	16.009-	11.059	6.766	12.929	.180-	114.5	13.380	10.508	1.212	455
500	12	292	29.812	25.725	27.611-	16.299	11.241	19.902	.191-	112.0	20.523	15.511	1.273	450
500	03	285	17.645	24.103	17.042-	15.771	4.572	18.227	.120-	110.0	18.578	15.357	1.162	449
500	06	268	18.261	21.339	18.245-	13.138	0.765-	16.815	.045-	95.0	16.840	13.105	1.174	457
500	09	285	24.850	26.030	23.963-	16.264	6.580	20.323	.043-	95.5	20.361	16.218	1.199	454
300	12	288	39.415	36.085	37.531-	21.384	12.042	29.066	.089-	98.0	29.201	21.200	1.193	447
300	03	270	22.505	35.066	22.505-	22.076	0.077	27.245	.172-	109.5	27.919	21.217	1.123	457
300	06	256	27.892	32.845	27.063-	21.098	6.746-	25.182	.007-	91.5	25.181	21.089	1.164	460
300	09	275	31.434	39.150	31.291-	24.865	2.998	30.240	.035	84.5	30.270	24.828	1.154	455
200	12	287	34.948	31.388	33.503-	18.757	9.944	25.167	.128-	101.5	25.407	18.431	1.242	449
200	03	258	18.897	29.472	18.504-	18.588	3.832-	22.871	.211-	112.5	23.682	17.543	1.130	457
200	06	245	29.619	32.636	26.868-	19.440	12.467-	26.214	.008	88.5	26.216	19.439	1.172	458
200	09	272	30.630	37.015	30.617-	22.841	0.883	29.127	.003	89.0	29.128	22.840	1.153	454

Prince George, B.C., Canada

700	12	262	15.514	21.347	15.354-	15.217	2.223-	14.972	.016	22.5	15.267	14.921	1.179	451
700	03	248	10.623	18.215	9.853-	13.003	3.970-	12.755	.039	32.0	13.162	12.591	1.162	461
700	06	255	7.527	15.436	7.280-	11.335	1.910-	10.477	.168	32.5	11.885	09.849	1.149	459
700	09	256	15.010	18.651	14.563-	13.059	3.637-	13.317	.054	55.0	13.566	12.800	1.189	456
500	12	273	26.233	29.164	26.196-	18.882	1.406	22.227	.112	72.5	22.556	18.488	1.204	451
500	03	260	16.629	28.897	16.350-	19.100	3.030-	21.684	.011-	92.5	21.688	19.095	1.171	460
500	06	266	10.882	23.517	10.855-	15.849	0.770-	17.374	.046	76.5	17.463	15.751	1.173	460
500	09	262	24.379	28.123	24.114-	17.478	3.589-	22.032	.034	86.0	22.054	17.450	1.186	457
300	12	280	37.385	41.935	36.866-	27.807	6.206	31.390	.020-	94.5	31.413	27.781	1.227	361
300	03	265	22.077	40.707	21.981-	27.277	2.050-	30.216	.121-	115.0	30.975	26.412	1.136	307
300	06	279	16.710	37.145	16.485-	24.326	2.731	28.071	.048-	99.5	28.168	24.213	1.154	275
300	09	267	36.490	40.443	36.430-	24.423	2.101-	32.235	.061-	96.0	32.316	24.315	1.175	334
200	12	284	35.920	33.051	34.900-	21.357	8.500	25.224	.004	89.0	25.225	21.356	1.262	358
200	03	275	18.403	32.467	18.345-	22.355	1.466	23.545	.173-	126.5	24.947	20.779	1.194	307
200	06	280	19.478	31.198	19.160-	20.770	3.507	23.280	.077-	107.0	23.527	20.489	1.176	275
200	09	270	34.727	34.979	34.727-	21.479	0.043	27.608	.027-	93.0	27.624	21.459	1.192	333

Resolute Bay, N.W.T., Canada

700	12	013	4.927	20.261	1.095	14.059	4.803	14.590	.031	70.0	14.670	13.976	1.164	452
700	03	328	5.360	19.791	2.809-	13.599	4.565	14.379	.073-	116.5	14.622	13.337	1.146	460
700	06	349	3.666	19.833	0.696-	13.703	3.599	14.337	.050-	114.0	14.489	13.542	1.133	460
700	09	336	7.032	19.103	2.856-	13.837	6.426	13.170	.068	27.0	14.063	12.928	1.160	451
500	12	021	3.962	26.663	1.452	18.916	3.686	18.792	.032	39.5	19.166	18.537	1.154	451
500	03	318	8.052	27.857	5.417-	19.370	5.957	20.020	.053-	119.0	20.306	19.070	1.146	460
500	06	325	5.009	26.814	2.856-	18.614	4.115	19.300	.055-	118.5	19.578	18.321	1.155	460
500	09	324	10.503	24.689	6.235-	17.833	8.452	17.074	.018	11.5	17.865	17.041	1.156	455
300	12	354	3.857	29.092	0.421-	21.224	3.835	19.897	.077	25.0	21.580	19.510	1.177	452
300	03	306	11.176	30.221	9.058-	21.095	6.545	21.641	.030-	115.0	21.789	20.942	1.155	460
300	06	313	7.360	36.067	5.344-	24.258	5.061	26.690	.016-	95.0	26.706	24.240	1.173	460
300	09	310	14.180	28.551	10.902-	20.757	9.068	19.604	.007	3.5	20.761	19.599	1.179	455
200	12	324	6.877	22.279	4.086-	16.747	5.531	14.694	.050	10.5	16.817	14.614	1.171	450
200	03	297	10.137	20.671	9.064-	15.095	4.538	14.123	.072-	156.0	15.319	13.879	1.171	460
200	06	309	7.802	23.081	6.075-	16.595	4.895	16.042	.078-	146.5	17.005	15.607	1.228	459
200	09	298	13.390	21.528	11.613-	15.322	6.303	15.123	.031-	146.5	15.478	14.964	1.225	454

Sable Island, N.S., Canada

850	12	264	14.416	19.836	14.347-	15.562	1.412-	12.301	.137-	165.0	15.788	12.009	1.130	37
850	03	289	12.202	22.737	11.529-	16.952	3.995	15.152	.219-	148.5	17.937	13.972	1.144	71
850	06	267	14.614	17.228	14.596-	12.642	0.723-	11.704	.039-	166.5	12.715	11.625	1.315	100
850	09	273	14.138	15.712	14.116-	11.921	0.787	10.235	.165	23.5	12.291	09.787	1.256	69
700	12	264	27.674	26.293	27.537-	18.794	2.749-	18.387	.066	36.0	19.204	17.959	1.191	451
700	03	260	18.674	25.186	18.371-	17.640	3.349-	17.977	.042	57.0	18.237	17.371	1.158	460
700	06	267	17.589	17.392	17.565-	12.044	0.917-	12.546	.159	52.0	13.265	11.248	1.188	460
700	09	264	21.337	22.648	21.213-	15.052	2.291-	16.922	.169	62.5	17.583	14.275	1.171	455
500	12	263	43.287	36.997	42.957-	26.622	5.339-	25.692	.042	25.0	26.896	25.405	1.222	451
500	03	260	29.975	34.533	29.496-	23.346	5.336-	25.447	.021	83.0	25.443	23.349	1.202	460
500	06	267	26.934	21.663	26.905-	14.904	1.259-	15.722	.074	62.5	16.021	14.582	1.266	460
500	09	262	33.408	31.125	33.074-	20.301	4.716-	23.593	.291	58.5	25.331	18.087	1.251	455
300	12	261	58.387	48.008	57.588-	33.417	9.626-	34.469	.026	69.5	34.689	33.189	1.230	451
300	03	259	42.795	44.334	41.938-	30.070	8.524-	32.577	.074	68.5	32.979	29.629	1.222	429
300	06	264	40.447	33.938	40.240-	23.213	4.091-	24.758	.080	64.5	25.231	22.698	1.309	368
300	09	259	50.157	42.612	49.296-	28.117	9.249-	32.019	.208	61.0	33.590	26.219	1.277	365
200	12	261	58.479	43.242	57.776-	29.077	9.045-	32.006	.081	70.0	32.457	28.573	1.244	451
200	03	258	41.959	38.803	41.082-	25.142	8.537-	29.556	.042	82.5	29.632	25.052	1.237	429
200	06	262	40.246	34.127	39.891-	23.512	5.334-	24.735	.163	53.5	26.123	21.960	1.312	368
200	09	258	52.391	40.434	51.151-	27.969	11.333-	29.200	.313	49.0	32.796	23.651	1.344	364

Stephenville, Nfld., Canada

P	J	$\bar{\theta}$	$ \bar{V} $	S_v	$\bar{x}$	S_x	$\bar{y}$	S_y	r	ψ	S_a	S_b	S_v/S_s	N
850	12	258	13.392	24.909	13.119-	16.360	2.691-	18.783	.040-	98.0	18.840	16.294	1.181	391
850	03	234	5.019	23.093	4.035-	17.063	2.984-	15.560	.010-	176.5	17.064	15.559	1.142	410
850	06	263	12.291	19.093	12.195-	13.826	1.533-	13.168	.088	30.5	14.171	12.796	1.203	433
850	09	265	13.862	23.897	13.802-	16.247	1.287-	17.524	.201	55.5	18.631	14.965	1.193	396
700	12	262	24.148	29.132	23.910-	21.305	3.383-	19.869	.036	14.0	21.369	19.800	1.196	451
700	03	258	11.222	27.053	10.986-	19.163	2.287-	19.096	.017	39.0	19.296	18.961	1.147	460
700	06	271	18.378	21.735	18.374-	15.285	0.362	15.453	.120	47.5	16.286	14.394	1.244	460
700	09	271	22.691	26.151	22.690-	17.267	0.254	19.640	.144	66.0	20.193	16.617	1.195	455
500	12	260	36.738	37.447	36.143-	26.194	6.584-	26.761	.004-	95.5	26.767	26.189	1.221	450
500	03	256	19.933	38.232	19.253-	27.456	4.758-	26.605	.053-	148.5	27.971	26.063	1.178	460
500	06	270	27.349	27.088	27.348-	18.397	0.194-	19.889	.136	60.0	20.609	17.580	1.236	460
500	09	266	34.773	35.432	34.691-	22.439	2.387-	27.421	.104	76.5	27.706	22.086	1.209	454
300	12	258	53.445	49.109	52.193-	33.633	11.499-	35.785	.122-	121.5	37.028	32.259	1.227	451
300	03	256	32.585	50.306	31.589-	35.486	7.996-	35.658	.031-	130.5	36.134	35.001	1.201	429
300	06	266	44.070	40.055	43.964-	26.917	3.054-	29.663	.144	62.0	30.685	25.746	1.234	368
300	09	261	55.345	46.872	54.730-	30.233	8.229-	35.819	.174	67.0	36.930	28.866	1.264	364
200	12	257	56.025	45.173	54.610-	31.826	12.512-	32.058	.006-	112.0	32.068	31.817	1.312	451
200	03	259	35.614	41.164	34.989-	29.577	6.644-	28.630	.029-	159.0	29.759	28.441	1.261	429
200	06	265	50.352	40.413	50.179-	26.941	4.175-	30.123	.161	62.5	31.239	25.639	1.281	368
200	09	261	59.609	46.630	58.830-	31.121	9.608-	34.725	.198	59.5	36.521	28.993	1.287	364

The Pas, Man., Canada

700	12	298	18.542	17.529	16.428-	11.139	8.597	13.534	.128-	106.5	13.747	10.875	1.206	451
700	03	298	9.228	17.850	8.176-	12.347	4.279	12.891	.102-	123.5	13.302	11.903	1.141	460
700	06	289	12.687	16.887	12.018-	11.135	4.064	12.696	.100-	108.5	12.884	10.917	1.202	459
700	09	294	16.243	17.823	14.833-	11.635	6.617	13.502	.066-	102.0	13.585	11.538	1.179	455
500	12	293	29.238	25.729	26.981-	16.459	11.265	19.775	.135-	109.0	20.137	16.014	1.283	451
500	03	285	16.544	22.659	15.998-	15.249	4.214	16.761	.095-	112.5	17.060	14.914	1.144	460
500	06	278	19.077	20.610	18.878-	13.406	2.746	15.653	.016-	93.0	15.659	13.399	1.188	460
500	09	289	23.649	25.313	22.400-	16.370	7.582	19.307	.050	81.5	19.369	16.296	1.165	455
300	12	290	37.796	35.416	35.557-	22.203	12.813	27.592	.059-	97.5	27.680	22.093	1.194	451
300	03	282	22.293	32.914	21.843-	21.600	4.460	24.835	.152-	113.5	25.550	20.750	1.143	459
300	06	272	27.328	30.414	27.318-	20.338	0.737	22.613	.054	76.5	22.746	20.189	1.159	460
300	09	286	30.696	38.260	29.469-	23.870	8.593	29.900	.057	83.0	29.985	23.763	1.139	455
200	12	289	34.736	30.943	32.800-	19.370	11.435	24.130	.013	88.0	24.134	19.365	1.258	449
200	03	276	17.680	28.131	17.594-	18.984	1.746	20.760	.119-	116.5	21.319	18.354	1.154	460
200	06	264	25.860	29.990	28.688-	19.280	3.145-	22.972	.086	77.0	23.164	19.049	1.184	460
200	09	283	29.753	36.504	28.970-	22.460	6.783	28.777	.016	88.0	28.783	22.452	1.147	454

Trout Lake, Ont., Canada

700	12	291	17.665	19.580	16.521-	14.153	6.253	13.530	.032	17.5	14.221	13.458	1.193	450
700	03	304	10.017	20.905	8.308-	14.408	5.597	15.147	.007-	94.0	15.144	14.411	1.143	459
700	06	286	15.593	18.026	14.991-	12.154	4.292	13.312	.036	78.5	13.342	12.120	1.181	459
700	09	287	15.126	20.512	14.462-	13.850	4.433	15.130	.029	80.0	15.166	13.811	1.143	455
500	12	287	28.113	27.826	26.856-	19.846	8.312	19.505	.087	39.5	20.553	18.759	1.258	450
500	03	293	16.432	25.948	15.134-	17.816	6.402	18.865	.113-	121.5	19.480	17.141	1.141	449
500	06	287	23.852	22.020	22.869-	14.136	6.777	16.883	.021	86.0	16.884	14.135	1.179	459
500	09	288	24.788	27.692	23.618-	17.750	7.527	21.255	.023-	94.0	21.282	17.719	1.175	454
300	12	287	39.030	35.243	37.228-	23.793	11.722	25.999	.088	67.0	26.438	23.304	1.267	449
300	03	288	25.085	36.383	23.813-	24.480	7.884	26.915	.092-	112.0	27.393	23.944	1.155	457
300	06	284	34.817	33.216	33.791-	21.951	8.392	24.928	.053	78.0	25.053	21.808	1.198	460
300	09	293	34.284	39.883	31.526-	24.898	13.472	31.156	.030	85.5	31.184	24.863	1.169	455
200	12	287	37.493	31.624	35.852-	21.262	10.971	23.410	.131	62.5	24.098	20.478	1.291	449
200	03	286	22.093	30.116	21.282-	20.295	5.934	22.251	.007-	92.5	22.246	20.299	1.186	457
200	06	282	35.572	32.414	34.731-	20.507	7.688	25.102	.164	70.0	25.690	19.765	1.193	458
200	09	294	35.445	35.891	32.422-	22.208	14.322	28.195	.010	88.5	28.194	22.209	1.195	454

Watson Lake, Y.T., Canada

700	12	277	8.742	19.050	6.680-	13.649	1.038	13.290	.059	33.0	13.903	13.024	1.119	451
700	03	241	7.504	16.210	6.537-	12.064	3.684-	10.828	.146-	153.5	12.456	10.374	1.125	460
700	06	275	4.402	14.004	4.382-	9.862	0.420	9.943	.142-	133.5	10.587	09.167	1.135	458
700	09	246	9.822	16.370	9.004-	11.737	3.963-	11.412	.049-	149.5	11.901	11.241	1.141	455
500	12	285	16.565	26.930	16.028-	16.687	4.183	21.137	.023-	93.0	21.147	16.675	1.173	452
500	03	242	11.530	24.070	10.188-	15.524	5.399-	18.394	.148-	110.5	18.819	15.006	1.118	460
500	06	255	6.010	19.410	5.812-	13.368	1.529-	14.073	.181-	127.0	14.964	12.363	1.127	460
500	09	251	15.139	22.117	14.283-	13.864	5.019-	17.231	.026-	93.5	17.242	13.850	1.144	455
300	12	288	25.272	35.930	24.063-	20.637	7.723	29.413	.094	82.5	29.537	20.459	1.195	451
300	03	237	16.896	36.079	14.117-	22.783	9.282-	27.976	.201-	112.0	28.896	21.604	1.127	460
300	06	246	10.837	33.403	9.895-	22.650	4.420-	24.551	.232-	125.5	26.357	20.521	1.116	460
300	09	247	24.419	36.162	22.488-	23.991	9.517-	27.057	.073-	105.5	27.302	23.712	1.156	455
200	12	291	25.569	31.140	23.910-	17.477	9.057	25.774	.173	78.5	26.087	17.007	1.199	449
200	03	239	17.292	29.225	14.857-	19.113	8.850-	22.109	.158-	113.5	22.761	18.331	1.130	460
200	06	245	12.323	29.809	11.150-	19.917	5.248-	22.179	.125-	114.5	22.743	19.270	1.118	460
200	09	250	26.425	32.003	24.883-	19.408	8.895-	25.447	.032-	93.5	25.465	19.384	1.191	454

Washington, D.C., U.S.A.														
P	J	$\bar{\theta}$	$\bar{M}$	S_y	$\bar{x}$	S_x	$\bar{y}$	S_y	r	ψ	S_d	S_b	S_y/S_s	N
850	12	281	16.911	20.297	16.571-	12.536	3.372	15.963	.052	84.0	15.998	12.491	1.185	369
850	03	284	12.386	19.659	12.013-	12.455	3.016	15.210	.098	77.0	15.351	12.280	1.168	362
850	06	290	7.585	13.384	7.137-	9.590	2.570	9.336	.070-	145.5	9.814	09.100	1.196	398
850	09	282	9.775	18.500	9.563-	12.723	2.025	13.431	.010-	95.5	13.437	12.716	1.216	442
700	12	270	31.811	24.281	31.811-	15.078	0.085-	19.031	.065	82.0	19.099	14.992	1.237	483
700	03	276	22.783	23.244	22.662-	15.817	2.342	17.034	.140	59.0	17.692	15.078	1.236	460
700	06	279	14.230	16.410	14.074-	12.632	2.107	10.476	.129	17.5	12.841	10.218	1.256	460
700	09	265	17.450	22.581	17.391-	16.658	1.423-	15.244	.139	29.0	17.232	14.592	1.241	516
500	12	269	52.615	34.650	52.598-	22.309	1.323-	26.514	.024	86.0	26.533	22.286	1.300	483
500	03	272	34.935	33.226	34.907-	23.374	1.384	23.614	.187	46.5	25.607	21.172	1.311	459
500	06	275	20.114	19.637	20.033-	14.738	1.803	12.977	.075	15.5	14.873	12.822	1.258	458
500	09	261	30.161	32.906	29.819-	24.565	4.525-	21.894	.197	30.0	25.777	20.453	1.386	516
300	12	267	71.028	43.687	70.950-	28.452	3.315-	33.151	.107	72.5	33.626	27.889	1.314	482
300	03	272	47.052	41.417	46.995-	28.461	1.883-	30.089	.036-	106.5	30.241	28.299	1.227	465
300	06	276	28.404	29.423	28.229-	20.963	3.157	20.648	.183	42.5	22.642	18.791	1.237	460
300	09	262	44.783	40.345	44.364-	29.621	6.111-	27.175	.218	33.5	31.727	24.923	1.385	510
200	12	268	76.395	41.244	76.347-	26.265	2.699-	31.800	.095	77.0	32.091	25.909	1.295	481
200	03	273	51.467	41.035	51.399-	28.084	2.645	29.918	.196	54.0	31.859	25.861	1.228	464
200	06	281	33.532	35.884	32.963-	25.233	6.154	25.514	.251	46.5	28.394	21.942	1.264	462
200	09	263	52.722	38.966	52.344-	28.463	6.297-	26.611	.251	37.5	30.924	23.707	1.363	519

Selected Point - 40°40'N.-082°00'W.

700	12	269	32.847	23.188	32.840-	14.979	0.683-	17.701	.083	77.0	17.847	14.804	1.274	483
700	03	277	23.498	24.422	23.320-	16.333	2.887	18.157	.244	56.5	19.423	14.806	1.208	460
700	06	275	16.796	17.324	16.734-	12.917	1.438	11.544	.148	26.5	13.334	11.060	1.210	460
700	09	267	20.713	23.115	20.690-	16.790	0.976-	15.886	.053	22.0	16.960	15.705	1.233	516
500	12	267	52.296	35.324	52.220-	22.984	2.808-	26.824	.124	70.5	27.319	22.393	1.297	483
500	03	275	34.075	33.806	33.943-	22.814	3.002	24.947	.154	60.0	25.940	21.679	1.258	458
500	06	274	22.761	20.242	22.695-	15.306	1.732	13.246	.135	21.5	15.658	12.828	1.256	460
500	09	267	32.643	32.370	32.596-	23.233	1.757-	22.540	.111	37.5	24.172	21.530	1.364	516
300	12	267	73.688	46.364	73.593-	30.786	3.741-	34.668	.075	74.0	35.006	30.401	1.271	483
300	03	274	48.079	43.978	47.961-	29.666	3.376	32.465	.109	65.0	33.217	28.821	1.230	459
300	06	278	34.017	28.862	33.717-	21.344	4.506	19.428	.200	32.5	22.544	18.021	1.286	460
300	09	266	47.810	45.559	47.676-	34.013	3.584-	30.310	.159	27.0	35.231	28.885	1.363	516
200	12	267	78.503	43.390	78.408-	27.888	3.870-	33.240	.129	72.0	33.827	27.173	1.284	483
200	03	273	51.678	41.777	51.617-	29.430	2.520	29.650	.226	46.0	32.717	25.978	1.261	460
200	06	278	41.531	35.884	41.163-	25.857	5.522	24.881	.228	40.0	28.161	22.240	1.250	457
200	09	266	54.590	44.696	54.479-	32.801	3.474-	30.361	.274	37.0	35.815	26.739	1.356	515

Selected Point - 37°20'N.-112°20'W.

500	12	277	28.137	34.136	27.917-	22.995	3.508	25.229	.237	55.5	27.033	20.844	1.212	483
500	03	270	21.582	29.757	21.581-	19.270	0.158	22.675	.146	69.0	23.206	18.627	1.226	460
500	06	243	16.949	16.909	15.054-	11.578	7.766-	12.323	.160	55.5	12.943	10.881	1.276	460
500	09	277	18.521	27.392	18.365-	18.177	2.394	20.493	.001-	90.5	20.493	18.177	1.273	515
300	12	276	44.977	49.302	44.689-	33.429	5.089	36.238	.309	52.5	40.040	28.766	1.213	476
300	03	271	35.456	42.310	35.450-	27.566	0.615	32.097	.223	62.0	33.685	25.602	1.207	456
300	06	247	29.435	26.890	27.037-	18.141	11.635-	19.848	.279	54.0	21.619	15.989	1.270	458
300	09	275	30.490	38.542	30.361-	25.780	2.811	28.650	.072	73.0	28.935	25.459	1.249	512
200	12	274	53.770	46.130	53.656-	31.203	3.515	33.977	.191	57.0	35.866	29.012	1.249	480
200	03	269	41.823	42.509	41.817-	27.681	0.667-	32.261	.203	63.5	33.637	25.992	1.235	457
200	06	246	39.117	33.287	35.770-	22.083	15.833-	24.908	.249	58.0	26.579	20.041	1.270	458
200	09	274	39.576	40.876	39.463-	28.237	2.990	29.555	.139	54.0	30.956	26.694	1.291	509

4. Mexico

Guaymas, Son., Mexico

700	12	259	12.091	16.514	11.861-	11.469	2.348-	11.882	.160	51.0	12.601	10.675	1.216	449
700	03	251	12.913	15.808	12.184-	11.720	4.276-	10.608	.013	44.0	11.724	10.603	1.280	460
700	06	135	5.112	11.419	3.584	8.739	3.645-	7.350	.232	26.5	9.158	06.821	1.155	450
700	09	199	3.458	14.346	1.103-	11.250	3.277-	8.902	.225	22.0	11.644	08.380	1.192	454
500	12	266	28.009	27.131	27.953-	18.844	1.766-	19.519	.202	50.0	21.061	17.103	1.350	451
500	03	258	25.474	21.384	24.925-	14.004	5.260-	16.161	.203	62.5	16.885	13.122	1.322	460
500	06	152	6.156	14.285	2.871	11.702	5.445-	8.194	.295	19.5	12.124	07.556	1.134	460
500	09	251	9.220	20.662	8.739-	16.929	2.940-	11.845	.185	13.5	17.189	11.464	1.266	454
300	12	264	49.525	38.998	49.220-	24.069	5.486-	30.684	.390	61.0	33.177	20.496	1.296	451
300	03	260	46.024	31.143	45.366-	21.830	7.756-	22.211	.219	47.5	24.325	19.447	1.373	460
300	06	198	7.379	22.423	2.253-	18.370	7.027-	12.859	.306	20.0	19.075	11.789	1.135	459
300	09	257	25.335	30.930	24.730-	24.086	5.503-	19.404	.267	25.5	25.288	17.810	1.368	449
200	12	265	57.747	40.858	57.528-	24.767	5.024-	32.497	.364	63.5	34.676	21.611	1.263	449
200	03	259	56.277	35.373	55.217-	21.402	10.865-	25.867	.275	62.5	27.366	19.449	1.310	460
200	06	214	9.646	28.243	5.374-	23.507	8.010-	15.656	.292	17.5	24.218	14.532	1.169	456
200	09	258	32.134	31.634	31.420-	23.307	6.735-	21.389	.287	36.5	25.491	18.733	1.330	450

Ocean Station "K" - 45° 00'N. - 016° 00'W.

P	J	$\bar{\theta}$	$\overline{ \nabla }$	S_v	$\bar{x}$	S_x	$\bar{y}$	S_y	r	ψ	S_d	S_b	S_v/S_s	N
850	12	275	11.134	23.903	11.094-	15.706	0.948	18.019	.067-	103.0	18.151	15.553	1.151	79
850	03	336	2.463	19.834	1.017-	14.086	2.243	13.963	.100-	137.5	14.713	13.301	1.104	47
850	06	288	8.210	31.301	7.829-	26.423	2.470	16.779	.273	15.0	27.038	15.771	1.446	132
850	09	268	11.094	23.755	11.089-	17.981	0.348-	15.525	.068-	167.5	18.103	15.382	1.211	129
700	12	276	16.302	28.650	16.204-	21.224	1.784	19.245	.006-	178.0	21.223	19.246	1.161	451
700	03	284	7.994	25.533	7.758-	19.059	1.928	16.991	.087	18.5	19.317	16.697	1.135	460
700	06	278	12.623	19.872	12.512-	14.573	1.673	13.510	.131	30.0	15.071	12.952	1.193	460
700	09	269	15.818	24.773	15.814-	17.833	0.369-	17.196	.065	30.5	18.143	16.869	1.145	455
500	12	279	21.223	35.383	20.981-	24.254	3.197	25.763	.059	68.0	26.016	23.982	1.154	451
500	03	283	12.047	31.648	11.741-	23.745	2.698	20.924	.129	23.0	24.313	20.261	1.132	460
500	06	273	17.432	24.634	17.402-	18.459	1.026	16.313	.164	26.5	19.116	15.538	1.169	459
500	09	269	21.766	31.515	21.758-	22.156	0.586-	22.413	.149	47.0	23.884	20.561	1.170	455
300	12	279	28.469	43.383	28.113-	31.030	4.491	30.320	.077	36.5	31.888	29.415	1.184	439
300	03	284	17.966	38.578	17.457-	27.628	4.246	26.926	.194	41.0	29.839	24.452	1.129	429
300	06	272	21.688	32.958	21.675-	24.525	0.727	22.018	.135	26.0	25.221	21.217	1.199	368
300	09	274	29.413	40.561	29.329-	29.146	2.216	27.920	.227	39.5	31.674	25.015	1.210	364
200	12	280	28.080	39.762	27.626-	27.304	5.031	28.905	.102	59.5	29.688	26.451	1.194	442
200	03	274	19.329	34.641	19.272-	24.334	1.488	24.654	.278	46.5	27.708	20.790	1.151	427
200	06	267	23.485	34.187	23.446-	25.078	1.348-	23.235	.241	36.0	27.048	20.909	1.174	368
200	09	274	30.122	39.088	30.038-	28.493	2.253	26.758	.189	36.0	30.271	24.729	1.191	363

Ocean Station "M" - 66° 00'N. - 002° 00'E.

850	12	250	9.457	28.797	8.871-	19.649	3.279-	21.051	.178	55.5	22.225	18.311	1.154	438
850	03	265	7.346	24.904	7.323-	17.982	0.581-	17.230	.192	39.0	19.266	15.781	1.154	407
850	06	216	3.357	18.999	1.996-	12.393	2.700-	14.401	.086	75.0	14.553	12.215	1.132	400
850	09	235	7.535	24.650	6.160-	16.189	4.338-	18.589	.041	81.5	18.647	16.123	1.151	431
700	12	257	12.659	28.364	12.358-	19.930	2.745-	20.183	.142	47.5	21.431	18.581	1.177	451
700	03	263	11.844	24.015	11.748-	17.352	1.508-	16.602	.066	28.5	17.624	16.313	1.201	460
700	06	229	5.922	19.055	4.464-	12.882	3.892-	14.041	.013	85.5	14.041	12.882	1.145	461
700	09	245	10.925	23.546	9.897-	15.584	4.627-	17.651	.030	83.0	17.680	15.551	1.166	455
500	12	264	19.838	35.330	19.744-	23.876	1.931-	26.042	.038	78.0	26.169	23.737	1.207	451
500	03	266	19.553	31.505	19.511-	21.148	1.287-	23.352	.064-	106.5	23.546	20.932	1.230	459
500	06	239	9.929	26.020	8.553-	18.463	5.043-	18.335	.084-	137.5	19.157	17.609	1.157	458
500	09	252	16.105	30.620	15.280-	20.995	5.089-	22.289	.133-	123.0	23.185	20.001	1.185	454
300	12	272	30.083	48.415	30.066-	31.895	0.997	36.425	.047-	100.0	36.540	31.763	1.235	447
300	03	270	29.738	45.492	29.738-	31.435	0.156	32.885	.044-	112.0	33.170	31.133	1.278	428
300	06	246	16.237	39.404	14.847-	27.671	6.575-	28.053	.123-	132.0	29.529	26.090	1.184	368
300	09	254	22.115	45.092	21.270-	29.552	6.057-	34.058	.115-	109.5	34.646	28.861	1.219	364
200	12	275	30.639	37.450	30.513-	23.842	2.774	28.879	.032	85.0	28.912	23.803	1.266	448
200	03	271	26.396	33.984	26.395-	23.171	0.241	24.861	.002-	91.0	24.857	23.175	1.325	428
200	06	247	15.874	28.970	14.605-	19.818	6.220-	21.131	.134-	122.5	21.950	18.906	1.217	368
200	09	262	22.061	36.669	21.835-	23.587	3.147-	28.076	.113-	106.5	28.473	23.107	1.253	364

7. Greenland

Danmarkshavn, Greenland

Europe

500 03 269 12.289 28.302 12.288- 18.892 0.154- 21.073 .082 71.5 21.341 18.589 1.202 460

Kap Tobin, Greenland

500 03 260 14.456 33.174 14.250- 23.238 2.431- 23.675 .059 53.5 24.221 22.669 1.248 460

Sal, Cape Verde Is., Portugal														
P	J	$\bar{\theta}$	$\bar{V}$	S_V	$\bar{x}$	S_x	$\bar{y}$	S_y	r	Ψ	S_d	S_b	S_V/S_b	N
850	12	051	6.060	15.646	4.706	12.688	3.819	9.154	.271	19.5	13.120	8.523	1.174	273
850	03	004	6.748	15.856	0.504	12.320	6.729	9.982	.232	24.0	12.822	9.329	1.191	242
850	06	080	11.619	16.012	11.444	12.346	2.011	10.197	.125	16.5	12.537	9.961	1.235	178
850	09	092	8.434	13.823	8.429	10.788	0.299	8.642	.119	14.0	10.914	8.482	1.215	281
700	12	245	6.107	17.001	5.543	13.252	2.564	10.650	.203	21.5	13.666	10.113	1.172	173
700	03	228	9.549	17.401	7.105	13.587	6.381	10.871	.164	18.0	13.875	10.501	1.171	139
700	06	098	18.775	17.977	18.599	14.934	2.569	10.007	.014	1.0	14.935	10.006	1.318	69
700	09	128	8.594	16.465	6.739	13.586	5.335	9.301	.295	18.5	14.046	8.592	1.183	204

14. Greece

Athens, Greece

850	12	280	8.048	24.006	7.934	17.181	1.350	16.766	.177	139.0	18.444	15.366	1.460	542
850	03	317	6.159	17.597	4.213	11.846	4.493	13.013	.382	52.0	14.686	9.695	1.216	552
850	06	008	13.203	14.911	1.937	10.725	13.061	10.359	.658	43.5	13.579	6.161	1.319	552
850	09	334	6.205	18.009	2.684	11.431	5.595	13.916	.518	55.5	15.826	8.594	1.190	546
700	12	269	14.552	22.034	14.551	14.374	0.180	16.701	.256	60.0	17.726	13.089	1.197	542
700	03	285	13.880	24.312	13.384	19.931	3.675	13.923	.104	8.0	20.033	13.776	1.483	552
700	06	329	11.171	15.958	5.712	12.108	9.600	10.395	.513	32.0	13.084	9.138	1.197	552
700	09	283	10.331	20.045	10.083	13.665	2.248	14.666	.404	50.0	16.824	10.898	1.210	546
500	12	272	22.622	29.638	22.601	20.109	0.976	21.772	.223	55.0	23.305	18.311	1.240	541
500	03	284	23.879	26.576	23.177	18.893	5.748	18.691	.230	43.5	20.846	16.485	1.275	552
500	06	296	19.689	21.421	17.669	16.741	8.686	13.365	.163	18.0	17.092	12.912	1.324	552
500	09	274	18.436	26.357	18.400	18.074	1.152	19.183	.308	50.5	21.359	15.443	1.281	546
300	12	276	35.854	41.701	35.686	28.606	3.470	30.343	.197	53.5	32.379	26.280	1.206	541
300	03	279	36.094	36.680	35.627	26.742	5.786	25.105	.158	34.0	28.054	23.630	1.265	552
300	06	276	33.527	31.327	33.316	22.426	3.756	21.874	.259	42.5	24.884	19.031	1.355	552
300	09	270	27.610	34.308	27.610	24.651	0.029	23.862	.188	40.0	26.462	21.836	1.227	546
200	12	272	44.875	40.661	44.842	29.307	1.709	28.186	.259	40.5	32.318	24.676	1.252	542
200	03	275	45.323	35.225	45.175	24.798	3.651	25.017	.201	46.5	27.289	22.274	1.344	552
200	06	261	47.201	32.568	46.569	22.653	7.697	23.398	.229	49.0	25.565	20.176	1.462	552
200	09	266	36.691	34.387	36.595	23.494	2.653	25.110	.213	53.5	26.877	21.450	1.265	546

15. North Africa

Aoulef, Algeria

Africa

850	12	329	3.532	15.476	1.832	12.582	3.020	9.012	.431	26.0	13.491	7.583	1.163	187
850	03	301	3.285	17.232	2.825	13.662	1.677	10.501	.323	25.5	14.444	9.397	1.174	260
850	06	084	9.857	16.210	9.809	13.893	0.964	8.353	.069	3.5	13.912	8.321	1.235	243
850	09	059	3.030	14.407	2.588	11.448	1.575	8.747	.316	24.5	12.065	7.874	1.152	200
700	12	284	14.103	21.315	13.693	16.533	3.378	13.453	.360	30.0	17.880	11.603	1.265	173
700	03	279	13.462	22.213	13.292	16.995	2.131	14.303	.378	32.5	18.658	12.054	1.239	243
700	06	081	5.399	16.066	5.337	12.511	0.819	10.080	.341	29.0	13.423	8.828	1.221	215
700	09	276	7.618	20.378	7.569	12.881	0.859	15.791	.184	69.0	16.239	12.311	1.437	198
500	12	271	36.783	29.694	36.778	24.363	0.632	16.976	.225	15.5	24.997	16.182	1.420	146
500	03	265	31.482	24.234	31.369	17.867	2.663	16.372	.274	36.0	19.448	14.458	1.434	174
500	06	097	3.151	17.149	3.125	13.476	0.405	10.606	.219	21.0	13.917	10.020	1.148	170
500	09	267	14.236	16.859	14.210	13.352	0.861	10.293	.252	22.0	13.866	9.589	1.322	159
300	12	268	65.964	46.414	65.905	36.733	2.789	28.372	.250	22.0	38.140	26.451	1.551	105
300	03	266	54.640	35.765	54.489	29.638	4.067	20.017	.234	15.0	30.266	19.055	1.841	122
300	06	261	8.795	17.343	8.695	13.727	1.327	10.599	.134	166.5	13.898	10.374	1.357	109
300	09	274	27.982	26.815	27.907	22.285	2.057	14.914	.422	23.0	23.578	17.772	1.450	127
200	12	264	72.652	50.637	72.238	38.308	7.747	33.116	.399	35.0	42.689	27.237	1.561	65
200	03	262	70.948	38.242	70.223	28.448	10.120	25.558	.365	37.0	31.758	21.305	1.642	70
200	06	255	14.032	23.595	13.561	18.560	3.607	14.568	.301	154.5	19.580	13.166	1.402	71
200	09	277	40.983	37.244	40.717	32.781	4.659	17.677	.215	9.0	33.088	17.096	1.705	84

Cairo, Egypt

850	12	278	7.039	14.303	6.969	10.580	0.995	9.625	.280	35.5	11.511	8.490	1.190	427
850	03	300	6.964	12.920	6.036	9.587	3.474	8.661	.361	37.0	10.704	7.236	1.172	375
850	06	334	8.470	9.488	3.702	7.009	7.618	6.394	.324	37.0	7.757	5.463	1.176	424
850	09	352	6.116	11.738	0.816	8.650	6.061	7.935	.253	35.5	9.348	7.100	1.192	510
700	12	269	16.189	18.951	16.188	13.768	0.201	13.021	.165	35.5	14.535	12.160	1.284	423
700	03	276	16.997	18.347	16.897	12.801	1.841	13.143	.187	49.0	11.684	11.263	1.263	369
700	06	289	9.514	13.656	8.969	9.573	3.176	9.738	.247	47.0	10.796	8.363	1.308	420
700	09	270	9.766	15.418	9.766	10.180	0.001	11.579	.242	59.0	12.300	9.296	1.289	507
500	12	270	34.240	30.111	34.239	22.472	0.118	20.042	.187	29.5	23.500	18.827	1.375	401
500	03	276	31.708	25.093	31.543	18.218	3.235	17.256	.065	25.5	18.468	16.988	1.379	351
500	06	272	14.596	17.467	14.586	12.836	0.532	11.846	.077	22.0	13.020	11.643	1.300	411
500	09	259	18.897	18.479	18.578	13.244	3.460	12.886	.232	41.5	14.515	11.436	1.373	489
300	12	271	52.358	40.330	52.342	30.914	1.288	25.901	.180	22.5	31.862	24.725	1.469	230
300	03	276	45.939	34.187	45.648	26.458	5.162	21.651	.101	13.5	26.709	21.340	1.363	252
300	06	259	19.688	21.494	19.303	16.806	3.874	13.399	.052	6.5	16.850	13.344	1.386	343
300	09	259	34.956	29.133	34.331	21.291	6.583	19.886	.089	26.5	21.726	19.410	1.435	385
200	12	269	54.179	42.877	54.172	31.788	0.927	28.775	.376	37.5	35.702	23.746	1.434	81
200	03	276	50.894	43.042	50.615	35.407	5.323	24.473	.114	8.5	35.613	24.173	1.396	122
200	06	244	18.013	22.926	16.173	18.658	7.932	13.322	.099	172.0	18.752	13.189	1.389	182
200	09	260	42.385	31.783	41.744	22.360	7.347	22.587	.023	123.5	22.849	22.093	1.347	227

Yakutsk, U.S.S.R.														
P	J	$\bar{\theta}$	$ \bar{V} $	S_v	$\bar{x}$	S_x	$\bar{y}$	S_y	r	ψ	S_a	S_b	S_v/S_s	N
850	12	314	5.255	13.788	3.795-	10.049	3.636	9.440	.199-	143.5	10.722	8.669	1.170	542
850	03	286	4.305	14.253	4.141-	10.069	1.177	10.087	.265-	135.0	11.342	8.631	1.173	552
850	06	259	2.996	14.238	2.944-	10.157	0.558-	9.979	.140-	138.5	10.760	9.326	1.159	552
850	09	286	6.469	14.393	6.228-	9.557	1.749	10.762	.121-	112.5	11.007	9.274	1.164	546
700	12	329	4.724	17.580	2.423-	12.397	4.055	12.465	.102-	133.5	13.067	11.760	1.135	542
700	03	289	5.023	16.740	4.749-	11.474	1.638	12.189	.147-	124.0	12.747	10.850	1.145	552
700	06	272	4.896	16.074	4.894-	11.230	0.150	11.501	.013-	105.0	11.505	11.226	1.149	552
700	09	288	8.284	17.354	7.880-	12.333	2.554	12.210	.017	30.5	12.353	12.190	1.142	546
500	12	320	2.854	23.768	1.841-	16.806	2.181	16.807	.027-	135.0	17.073	16.536	1.133	542
500	03	283	6.255	23.881	6.094-	16.434	1.407	17.328	.075-	117.5	17.657	16.079	1.157	552
500	06	271	8.052	20.246	8.050-	14.122	0.202	14.508	.084	54.0	14.931	13.674	1.143	552
500	09	274	9.495	23.253	9.468-	16.048	0.722	16.828	.048	67.5	16.968	15.900	1.134	546
300	12	320	4.309	28.425	2.747-	19.766	3.320	20.427	.007-	97.0	20.432	19.762	1.123	542
300	03	263	8.991	26.464	8.930-	18.030	1.044-	19.371	.020-	98.0	19.373	18.028	1.133	552
300	06	268	12.954	23.718	12.944-	16.384	0.514-	17.149	.099	57.5	17.670	15.822	1.163	552
300	09	275	12.664	29.019	12.623-	19.663	1.014	21.342	.048	74.5	21.455	19.540	1.157	546
200	12	314	5.678	28.664	4.068-	19.832	3.961	20.696	.134-	126.0	21.646	18.790	1.148	542
200	03	266	7.920	26.931	7.900-	19.014	0.560-	19.072	.092-	134.0	19.880	18.168	1.166	552
200	06	268	17.242	26.650	17.233-	18.042	0.563-	19.614	.033	79.0	19.664	17.987	1.196	552
200	09	274	15.588	27.974	15.557-	19.475	0.975	20.082	.052	60.0	20.390	19.152	1.137	546

Mys Chelyuskin, U.S.S.R

500	03	220	4.705	28.896	3.047-	23.119	3.585-	17.335	.030-	177.0	23.133	17.316	1.169	460
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Mys Zhelania, U.S.S.R.

500	03	291	8.132	32.682	7.616-	24.999	2.852	21.051	.160	21.5	25.660	20.240	1.155	460
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Khatanga, U.S.S.R.

500	03	262	5.831	27.316	5.778-	21.330	0.779-	17.065	.174	19.0	21.827	16.424	1.190	460
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Bukhta Tiksi, U.S.S.R.

500	03	203	4.592	24.823	1.827-	18.938	4.213-	16.048	.044-	172.5	18.985	15.992	1.159	460
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Ostrov Chetyrekh-Stolbovoy, U.S.S.R

500	03	190	5.112	24.047	0.898-	17.884	5.033-	16.076	.096-	159.0	18.172	15.750	1.160	460
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Turukhansk, U.S.S.R.

500	03	293	19.240	29.080	17.698-	20.127	7.545	20.988	.138	53.5	21.995	19.022	1.214	457
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17. Hong Kong

Hong Kong (Royal Obs.)

850	12	132	1.960	13.415	1.454	9.450	1.314-	9.522	.200	46.0	10.391	8.485	1.121	254
850	03	202	8.854	12.194	3.348-	9.290	8.197-	7.899	.178	24.0	9.596	7.524	1.166	239
850	06	190	7.487	14.912	1.334-	12.220	7.368-	8.548	.233	16.5	12.510	8.117	1.171	269
850	09	075	7.910	12.963	7.641-	9.435	2.046	8.888	.037	16.0	9.475	8.866	1.258	300
700	12	259	17.260	14.444	16.935-	11.026	3.333-	9.331	.148	20.5	11.284	9.017	1.288	247
700	03	250	17.415	12.142	16.385-	9.633	5.900-	7.392	.049-	175.0	9.646	7.374	1.301	236
700	06	195	7.465	14.813	1.892-	11.945	7.221-	8.761	.121	10.5	12.045	8.623	1.176	267
700	09	237	1.205	13.318	1.015-	10.565	0.649-	8.108	.007	1.0	10.567	8.107	1.162	293
500	12	259	36.796	19.175	36.144-	14.187	6.897-	12.900	.251-	145.5	15.263	11.607	1.330	241
500	03	256	27.808	15.872	27.038-	12.919	6.499-	9.220	.149	11.5	13.059	9.020	1.742	243
500	06	160	2.935	15.509	0.988	13.252	2.764-	8.057	.172	9.0	13.366	7.868	1.239	273
500	09	260	6.069	16.311	5.971-	13.815	1.088-	8.672	.079	4.5	13.841	8.630	1.191	284
300	12	257	57.969	21.916	56.419-	15.778	13.314-	15.211	.077-	147.5	16.149	14.817	1.432	213
300	03	262	42.882	24.021	42.457-	19.741	6.021-	13.686	.222	15.5	20.151	13.075	1.784	217
300	06	072	7.256	17.236	6.908	14.664	2.221	9.059	.237	12.5	14.903	8.661	1.174	261
300	09	264	12.179	23.885	12.122-	20.243	1.180-	12.676	.359	18.0	20.981	11.414	1.284	260
200	12	251	57.529	24.829	54.436-	16.027	18.610-	18.964	.202-	115.0	19.708	15.103	1.287	116
200	03	266	43.354	26.103	43.263-	21.121	2.817-	15.338	.361	24.0	22.325	13.527	1.573	165
200	06	063	13.565	25.348	12.116	22.160	6.099	12.306	.255	11.0	22.471	11.728	1.209	243
200	09	270	14.500	27.849	14.500-	22.729	0.006	16.092	.344	22.0	23.827	14.416	1.230	224

18. Japan

Fukuoka, Japan

850	12	284	13.716	16.458	13.278-	11.757	3.435	11.517	.170	41.5	12.596	10.592	1.229	436
850	03	264	6.087	18.630	6.054-	13.059	0.635-	13.287	.103	50.0	13.846	12.465	1.219	444
850	06	213	6.523	17.836	3.533-	13.708	5.484-	11.411	.049	7.5	13.744	11.367	1.303	436
850	09	294	3.733	15.953	3.423-	11.454	1.490	11.104	.260	41.5	12.673	9.690	1.168	442
700	12	278	32.603	22.054	32.279-	15.311	4.588	15.872	.159-	128.5	16.820	14.263	1.287	451
700	03	274	21.344	23.276	21.291-	17.489	1.507	15.359	.030	6.5	17.517	15.327	1.300	460
700	06	241	9.252	19.007	8.064-	15.433	4.535-	11.095	.080	6.5	15.485	11.022	1.265	460
700	09	270	17.232	19.037	17.232-	14.029	0.110	12.868	.045-	166.0	14.100	12.790	1.277	455
500	12	272	60.817	28.223	60.770-	20.410	2.380	19.493	.003	2.0	20.411	19.492	1.409	453
500	03	269	45.678	29.406	45.674-	23.042	0.641-	18.270	.149	16.0	23.436	17.762	1.480	454
500	06	255	17.007	24.199	16.450-	20.115	4.317-	13.453	.109	7.5	20.212	13.307	1.274	460
500	09	264	38.841	27.497	38.601-	19.857	4.311-	19.020	.026	15.5	19.927	18.947	1.406	455
300	12	269	98.154	37.379	98.137-	29.335	1.799-	23.166	.038	4.5	29.371	23.120	1.569	424
300	03	268	74.288	39.416	74.246-	29.498	2.479-	26.143	.080	17.0	29.815	25.781	1.468	428
300	06	256	28.282	39.170	27.415-	32.080	6.950-	22.477	.122	9.5	32.304	22.155	1.344	368
300	09	262	66.608	41.555	65.963-	32.335	9.246-	26.101	.077	10.0	32.512	25.880	1.537	364
200	12	268	112.535	44.029	112.469-	34.262	3.860-	27.653	.148	17.0	34.893	26.853	1.562	448
200	03	266	87.171	44.199	86.903-	33.423	6.837-	28.921	.176	25.5	34.604	27.497	1.486	423
200	06	260	32.047	46.061	31.518-	38.803	5.796-	24.818	.183	11.0	39.236	24.128	1.335	369
200	09	262	77.812	47.537	76.963-	39.114	11.459-	27.017	.180	12.5	39.660	26.208	1.608	363

Trivandrum, India														
P	J	$\bar{e}$	$\sqrt{V}$	S_y	$\bar{x}$	S_x	$\bar{y}$	S_y	r	Ψ	S_d	S_b	S_v/S_s	N
850	12	054	5.491	7.453	4.426	5.948	3.250	4.491	.184	16.5	6.070	4.325	1.260	823
850	03	351	4.714	10.158	0.723-	8.743	4.658	5.172	.249-	168.0	8.882	4.928	1.177	861
850	06	299	25.472	12.305	22.207-	9.086	12.477	8.297	.173-	149.0	9.511	7.806	1.432	771
850	09	313	6.980	13.338	5.126-	11.390	4.737	6.942	.379-	162.0	11.814	6.192	1.297	769
700	12	076	5.361	9.439	5.197	7.814	1.317	5.294	.000	0.0	7.814	5.294	1.201	754
700	03	059	10.137	11.913	8.722	9.361	5.166	7.369	.286	25.0	9.839	6.717	1.396	771
700	06	291	17.809	14.809	16.668-	12.487	6.272	7.961	.256-	165.5	12.748	7.536	1.541	442
700	09	309	4.043	12.651	3.160-	11.187	2.523	5.909	.346-	166.5	11.429	5.426	1.261	626
500	12	076	7.771	13.234	7.528	10.661	1.925	7.840	.155	13.0	10.804	7.643	1.281	481
500	03	072	3.617	12.378	3.439	10.060	1.121	7.213	.187	14.5	10.232	6.967	1.211	385
500	06	092	2.793	14.749	2.791	13.838	0.107-	5.102	.139-	176.5	13.860	5.043	1.470	96
500	09	073	6.156	10.683	5.883	8.856	1.814	5.975	.107	7.5	8.896	5.915	1.240	332
300	12	187	3.707	16.862	0.471-	12.776	3.677-	11.004	.290	31.5	13.713	9.812	1.133	162
300	03	231	2.123	14.892	1.646-	11.449	1.340-	9.523	.121	16.5	11.624	9.309	1.160	116
300	06	092	16.729	9.961	16.721	8.291	0.521-	5.520	.052-	176.5	8.301	5.505	1.481	33
300	09	098	11.838	9.681	11.718	7.931	1.684-	5.552	.049	4.0	7.938	5.541	1.538	81

Veraval, India														
850	12	279	1.974	10.833	1.951-	8.046	0.301	7.253	.057	14.5	8.097	7.196	1.187	1073
850	03	292	7.098	11.604	6.569-	9.046	2.687	7.267	.103	12.5	9.132	7.159	1.206	999
850	06	253	13.059	12.912	12.504-	10.998	3.765-	6.765	.040	2.5	11.004	6.754	1.271	593
850	09	091	1.767	11.184	1.766	8.685	0.037-	7.047	.402	31.0	9.505	5.894	1.138	816
700	12	268	9.835	13.857	9.828-	10.334	0.359-	9.232	.087	19.0	10.478	9.069	1.288	919
700	03	260	7.056	14.402	6.945-	9.527	1.248-	10.801	.194	61.5	11.294	8.936	1.197	748
700	06	286	0.865	13.246	0.829-	10.834	0.244	7.622	.080	6.5	10.870	7.570	1.130	182
700	09	087	1.569	12.191	1.567	8.967	0.086	8.259	.208	34.0	9.530	7.602	1.203	636
500	12	271	27.659	21.981	27.655-	16.831	0.458	14.138	.231	26.5	17.631	13.127	1.298	432
500	03	284	12.982	20.287	12.588-	16.131	3.177	12.303	.259	21.5	16.760	11.432	1.253	387
500	06	096	3.060	13.278	3.045	10.992	0.305-	7.448	.370	21.5	11.520	6.602	1.193	57
500	09	295	5.798	13.202	5.247-	10.339	2.466	8.209	.163	17.5	10.551	7.935	1.222	318
300	12	267	43.285	28.334	43.233-	19.553	2.117-	20.505	.008-	95.0	20.511	19.547	1.279	85
300	03	282	25.433	25.156	24.853-	18.220	5.397	17.344	.048-	157.5	18.373	17.182	1.393	116
300	06	079	9.810	11.955	9.638	10.739	1.831	5.253	.036-	178.5	10.741	5.249	1.342	16
300	09	260	11.333	19.723	11.161-	17.521	1.970-	9.056	.319	12.0	17.829	8.434	1.334	90

22. Korea

22. Korea					Seoul, Korea									
850	12	299	18.660	14.486	16.365-	9.154	8.966	11.227	.095-	102.5	11.324	9.034	1.302	173
850	03	284	7.537	17.170	7.317-	11.770	1.807	12.501	.079-	116.5	12.732	11.520	1.208	153
850	06	254	4.030	15.150	3.873-	12.023	1.111-	9.217	.086	9.0	12.086	9.134	1.275	216
850	10	300	8.734	14.760	7.529-	10.437	4.427-	10.437	.211-	135.0	11.486	9.270	1.207	195
700	12	291	29.067	17.536	27.110-	11.669	10.486	13.090	.035-	98.5	13.122	11.633	1.357	461
700	03	287	18.243	20.054	17.412-	14.210	5.442	14.151	.062-	137.0	14.615	13.732	1.261	461
700	06	270	7.091	17.139	7.091-	13.597	0.011-	10.435	.171	16.5	13.858	10.086	1.199	460
700	09	290	17.332	17.056	16.320-	12.890	5.837	11.168	.049	9.5	12.936	11.115	1.275	455
500	12	284	48.803	29.117	47.439-	21.630	11.458	19.490	.056	14.5	21.771	19.332	1.366	451
500	03	284	33.366	25.496	32.377-	18.984	8.063	17.018	.080	18.0	19.206	16.767	1.345	456
500	06	276	14.648	20.286	14.557-	15.255	1.630	13.372	.123	21.5	15.580	12.992	1.425	459
500	09	279	34.138	25.333	33.724-	19.481	5.300	16.195	.151	19.5	19.913	15.661	1.425	455
300	12	278	78.880	39.317	78.030-	30.233	11.550	25.136	.182	22.0	31.155	23.983	1.486	421
300	03	278	55.761	37.734	55.237-	27.717	7.628	25.605	.178	33.0	29.161	23.947	1.377	428
300	06	268	24.282	30.050	24.263-	23.533	0.949-	18.687	.018	2.5	23.540	18.678	1.306	368
300	09	275	55.885	39.272	55.677-	29.403	4.821	26.033	.269	33.0	31.584	23.339	1.336	364
200	12	275	86.977	41.205	86.617-	32.348	7.893	25.524	.217	21.0	33.404	24.126	1.458	448
200	03	274	65.078	36.573	64.925-	27.295	4.462	24.343	.206	30.5	28.738	22.621	1.417	426
200	06	269	30.790	36.947	30.788-	27.117	0.303-	25.096	.024	9.0	27.164	25.045	1.299	368
200	09	270	68.550	40.763	68.549-	30.418	0.341	27.137	.217	31.0	32.150	25.061	1.467	363

23. Philippines

Angeles, Luzon

P	J	$\bar{\theta}$	$\bar{V}$	S_v	$\bar{x}$	S_x	$\bar{y}$	S_y	r	ψ	S_a	S_b	S_v/S_s	N
850	12	078	11.071	9.568	10.816	7.357	2.362	6.117	.110	15.5	7.448	6.006	1.382	525
850	03	100	5.396	7.304	5.312	5.733	0.947	4.525	.220	21.5	5.923	4.274	1.300	538
850	06	212	9.801	13.601	3.056	11.030	4.931	7.957	.205	16.0	11.259	7.630	1.283	534
850	09	083	4.391	13.632	4.357	10.513	0.540	8.677	.300	28.5	11.201	7.769	1.217	522
700	12	103	8.730	12.704	8.490	10.275	2.034	7.470	.046	176.0	10.287	7.454	1.299	520
700	03	108	6.078	9.198	5.786	7.241	1.861	5.672	.024	177.0	7.247	5.664	1.324	532
700	06	196	5.073	16.211	1.375	13.272	4.883	9.309	.239	14.5	13.600	8.822	1.253	529
700	09	102	6.276	15.186	6.145	11.777	1.274	9.586	.087	11.5	11.867	9.476	1.236	520
500	12	155	3.550	12.800	1.490	9.737	3.223	8.308	.151	158.0	9.987	8.006	1.205	511
500	06	121	1.933	10.179	1.664	7.916	0.984	6.400	.056	7.5	7.937	6.374	1.216	528
500	06	123	4.491	14.376	3.776	11.116	2.433	9.115	.305	28.5	11.850	8.139	1.203	501
500	09	106	6.255	14.332	6.019	10.343	1.701	9.921	.078	31.0	10.567	9.681	1.223	498

24. Malaya

Singapore, Malaya

850	12	351	7.357	11.611	1.165	9.292	7.264	6.962	.281	22.0	9.682	6.409	1.188	442
850	03	288	2.337	9.954	2.222	7.276	0.723	6.794	.094	27.0	7.436	6.618	1.180	440
850	06	231	9.693	10.344	7.559	8.015	6.068	6.538	.021	177.0	8.016	6.537	1.267	433
850	09	238	7.393	13.101	6.271	10.039	3.916	8.418	.210	155.0	10.442	7.913	1.183	470
700	12	324	3.532	12.144	2.099	9.838	2.841	7.120	.052	175.5	9.854	7.098	1.149	348
700	03	301	2.414	10.417	2.079	8.440	1.227	6.105	.076	173.5	8.467	6.067	1.192	400
700	06	263	8.239	12.515	8.180	9.928	0.982	7.619	.001	0.0	9.930	7.618	1.212	370
700	09	259	5.789	13.679	5.686	11.043	1.089	8.073	.093	172.0	11.098	7.997	1.180	404
500	12	093	4.947	11.657	4.938	9.434	0.288	6.847	.034	177.0	9.440	6.840	1.153	181
500	03	090	3.702	10.504	3.702	8.455	0.007	6.232	.000	180.0	8.455	6.232	1.148	252
500	06	099	8.052	11.129	7.946	9.193	1.304	6.273	.084	6.0	9.220	6.232	1.215	191
500	09	083	5.328	11.874	5.285	10.411	0.677	5.709	.008	179.5	10.411	5.709	1.167	197
300	12	097	11.094	11.567	11.007	9.229	1.393	6.973	.109	169.5	9.300	6.878	1.245	113
300	03	096	9.423	9.636	9.375	7.147	0.944	6.464	.135	153.5	7.359	6.221	1.273	171
300	06	083	21.292	11.265	21.139	9.204	2.544	6.494	.011	179.0	9.204	6.494	1.241	125
300	09	088	14.464	12.651	14.454	10.566	0.523	6.958	.109	7.0	10.613	6.885	1.458	120
200	12	117	20.584	14.601	18.401	11.341	9.225	9.196	.224	156.5	11.775	8.633	1.410	70
200	03	096	18.754	16.709	18.634	13.638	2.119	9.653	.164	167.5	13.813	9.401	1.367	111
200	06	074	37.102	16.606	35.643	12.712	10.304	10.684	.131	18.5	12.942	10.405	1.543	95
200	09	083	29.025	18.224	28.797	14.669	3.631	10.813	.382	25.5	15.629	9.373	1.535	89

25. Pacific Stations

Guam, Marianas Is.

850	12	090	19.877	12.351	19.877	9.391	0.072	8.023	.135	20.5	9.585	7.789	1.361	407
850	03	093	16.107	11.363	16.090	9.106	0.736	6.796	.013	1.5	9.107	6.795	1.404	360
850	06	114	10.730	12.289	9.835	10.248	4.290	6.782	.123	8.0	10.307	6.693	1.250	409
850	09	109	10.407	14.824	9.826	12.298	3.429	8.278	.122	8.5	12.372	8.167	1.232	421
700	12	092	14.841	12.650	14.829	9.869	0.616	7.914	.100	12.0	9.954	7.807	1.346	451
700	03	094	11.417	11.172	11.393	9.019	0.752	6.593	.146	12.5	9.123	6.449	1.289	460
700	06	115	9.372	12.307	8.464	10.192	4.025	6.898	.219	14.5	10.383	6.607	1.242	459
700	09	105	10.096	14.492	9.763	11.259	2.570	9.125	.065	8.5	11.301	9.073	1.245	454
500	12	097	12.471	15.048	12.390	12.140	1.424	8.892	.006	0.5	12.139	8.893	1.234	451
500	03	089	7.345	12.557	7.343	9.840	0.176	7.800	.026	176.0	9.849	7.789	1.162	453
500	06	112	8.072	12.955	7.502	9.944	2.978	8.304	.071	10.5	9.998	8.238	1.216	460
500	09	101	10.621	14.275	10.433	10.947	1.989	9.162	.105	15.0	11.077	9.004	1.245	454
300	12	100	5.424	16.031	5.343	13.121	0.930	9.211	.224	163.5	13.410	8.784	1.207	450
300	03	279	4.497	17.907	4.442	14.703	0.697	10.222	.063	5.0	14.731	10.182	1.170	428
300	06	077	4.530	16.441	4.411	12.300	1.032	10.909	.048	11.0	12.345	10.858	1.149	366
300	09	088	7.465	17.957	7.458	14.840	0.321	10.111	.006	179.0	14.840	10.111	1.250	364
200	12	130	2.630	19.077	2.011	16.202	1.694	10.071	.130	172.0	16.287	9.933	1.214	450
200	03	259	9.892	21.938	9.715	18.162	1.867	12.306	.056	4.0	18.185	12.272	1.220	426
200	06	062	5.118	23.135	4.519	17.835	2.403	14.736	.084	12.0	17.962	14.580	1.168	368
200	09	073	5.668	23.047	5.425	18.560	1.640	13.664	.064	6.0	18.603	13.605	1.226	363

Honolulu, Oahu, T.H.

850	12	086	6.580	15.006	6.568	12.348	0.403	8.525	.399	23.5	13.062	7.386	1.184	436
850	03	071	9.557	11.152	9.019	9.662	3.161	5.569	.162	8.0	9.723	5.462	1.283	442
850	06	073	12.055	9.144	11.504	7.552	3.604	5.155	.154	11.0	7.628	5.042	1.408	458
850	09	069	11.655	11.799	10.877	10.030	4.189	6.214	.321	16.5	10.319	5.720	1.294	452
700	12	121	3.345	16.951	2.870	13.848	1.717	9.776	.295	20.0	14.359	9.009	1.186	451
700	03	072	2.995	12.021	2.847	10.072	0.930	6.563	.158	10.0	10.161	6.424	1.186	460
700	06	081	7.065	9.498	6.969	7.612	1.164	5.681	.034	3.5	7.616	5.675	1.265	455
700	09	073	5.815	11.841	5.569	9.889	1.672	6.512	.247	15.0	10.102	6.177	1.211	459
500	12	285	7.162	22.128	6.906	16.721	1.900	14.494	.254	30.5	17.769	13.189	1.171	451
500	03	283	6.418	17.636	6.254	14.252	1.443	10.389	.255	19.5	14.711	9.727	1.180	461
500	06	161	0.455	13.032	0.148	10.147	0.430	8.176	.125	15.0	10.287	8.000	1.123	460
500	09	346	1.309	15.546	0.327	12.029	1.268	9.848	.188	21.5	12.387	9.395	1.176	455
300	12	282	29.890	37.292	29.186	24.993	6.448	27.677	.200	58.0	29.168	23.236	1.201	450
300	03	271	28.706	33.636	28.698	26.781	0.645	20.350	.326	25.0	28.267	18.230	1.311	429
300	06	258	14.398	20.904	14.102	15.355	2.901	14.183	.115	27.5	15.775	13.715	1.226	368
300	09	269	16.678	25.186	16.675	19.500	0.330	15.940	.283	27.0	20.625	14.455	1.218	364
200	12	285	43.511	39.698	41.985	29.021	11.423	27.086	.274	38.0	31.803	23.759	1.255	451
200	03	273	46.130	40.662	46.063	32.147	2.496	24.899	.236	21.5	33.272	23.374	1.381	429
200	06	262	25.460	28.533	25.203	21.437	3.610	18.830	.115	21.0	21.838	18.364	1.253	366
200	09	266	28.617	30.565	28.548	24.252	1.990	18.603	.328	25.5	25.661	16.605	1.295	364

Selected Point - 40°00'N.-150°00'W														
P	J	$\bar{\theta}$	$ \bar{V} $	S_V	$\bar{x}$	S_x	$\bar{y}$	S_y	r	Ψ	S_d	S_b	S_V/S_S	N
700	12	260	23.168	26.832	22.841-	19.503	3.879-	18.428	.087	28.5	19.938	17.957	1.203	451
700	03	266	24.644	22.046	24.595-	14.655	1.564-	16.470	.131	66.0	16.898	14.160	1.192	460
700	06	261	13.150	18.596	12.995-	13.207	2.018-	13.090	.352	44.5	15.292	10.580	1.209	460
700	09	263	22.903	21.968	22.724-	14.911	2.860-	16.132	.022-	98.0	16.155	14.886	1.205	455
500	12	262	33.661	35.647	33.306-	24.915	4.874-	25.495	.136	50.0	26.900	23.391	1.215	451
500	03	266	35.059	28.076	34.951-	18.921	2.751-	20.743	.080	69.5	21.029	18.603	1.232	460
500	06	263	17.072	24.043	16.953-	17.712	2.013-	16.260	.281	36.5	19.335	14.292	1.231	460
500	09	260	32.600	30.342	32.127-	20.485	5.532-	22.383	.006	88.0	22.386	20.482	1.251	455
300	12	267	46.494	42.761	46.412-	29.440	2.760-	31.012	.214	52.0	33.399	26.701	1.220	451
300	03	269	46.063	37.228	46.061-	25.518	0.504-	27.106	.124	58.0	28.081	24.441	1.254	429
300	06	269	20.144	30.501	20.143-	22.583	0.290-	20.502	.294	36.0	24.674	17.931	1.243	368
300	09	260	43.293	39.823	42.664-	27.522	7.349-	28.783	.033	71.5	28.939	27.358	1.275	364
200	12	267	49.155	39.425	49.101-	26.782	2.294-	28.932	.184	56.5	30.534	24.941	1.212	448
200	03	271	44.339	34.630	44.328-	23.306	1.000	25.614	.083	69.5	25.978	22.900	1.233	429
200	06	273	19.706	33.423	19.685-	25.075	0.913	22.100	.266	32.5	26.871	19.877	1.146	368
200	09	262	44.915	39.005	44.437-	25.934	6.531-	29.135	.039	80.5	29.221	25.837	1.258	364

Selected Point - 40°00'N.-175°00'E														
700	12	259	29.876	22.585	29.352-	15.001	5.568-	16.884	.048-	101.0	16.956	14.920	1.225	451
700	03	261	29.224	22.833	28.849-	14.611	4.670-	17.546	.208	65.5	18.219	13.763	1.234	460
700	06	259	17.437	16.747	17.130-	11.632	3.257-	12.048	.026-	108.5	12.099	11.579	1.215	460
700	09	267	25.791	20.268	25.758-	14.382	1.313-	14.281	.132	43.5	15.252	13.347	1.258	454
500	12	258	46.901	31.902	45.857-	22.255	9.843-	22.857	.028	66.5	22.995	22.112	1.259	450
500	03	261	43.861	27.931	43.292-	18.081	7.043-	21.290	.192	65.0	22.079	17.109	1.265	460
500	06	266	24.565	21.843	24.516-	15.462	1.557-	15.428	.028	43.0	15.667	15.220	1.243	460
500	09	269	39.638	26.605	39.628-	19.252	0.898-	18.363	.228	39.0	20.888	16.479	1.325	455
300	12	257	70.357	38.758	68.671-	26.935	15.305-	27.870	.134	52.0	29.248	25.432	1.323	423
300	03	263	63.576	37.428	63.102-	23.089	7.750-	29.457	.249	67.5	30.635	21.502	1.231	429
300	06	270	34.091	30.951	34.090-	22.391	0.290	21.369	.049	23.5	22.616	21.130	1.330	368
300	09	271	60.530	39.115	60.519-	27.460	1.170	27.856	.151	47.5	29.687	25.470	1.370	364
200	12	258	75.065	42.750	73.307-	30.571	16.151-	29.883	.054	33.5	31.114	29.318	1.337	449
200	03	261	66.703	37.863	65.856-	23.709	10.594-	29.522	.155	72.5	30.100	22.970	1.263	429
200	06	274	37.671	34.632	37.576-	24.483	2.684	24.495	.050	45.5	25.104	23.858	1.261	368
200	09	274	64.031	40.505	63.898-	28.355	4.125	28.925	.209	47.5	31.509	25.453	1.304	364