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Percentiles and Extremes of Atmospheric Pressure at Sea Level: Stations in New Zealand, the Pacific Islands and Antarctica

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CONTENTS

STATION IDENTIFICATION

Climatological and rainfall stations in New Zealand are indentified with an alphanumeric code which is constructed as follows

STATION: KELBURN E14272

E Section E is the south-western part of the North Island shown by the dashed line.

1) The first two digits show that
4) the station lies within the one -degree square labelled 14 whose north-west corner is at 41°S and 174°E.

2) Starting from the north-west
7) corner of square 14 move 2 tenths south and 7 tenths east. The station now lies in the tenth-degree square whose north-west corner lies at 14°12'S 174°42'E.

2) The last digit has no positional significance and it may be a letter.

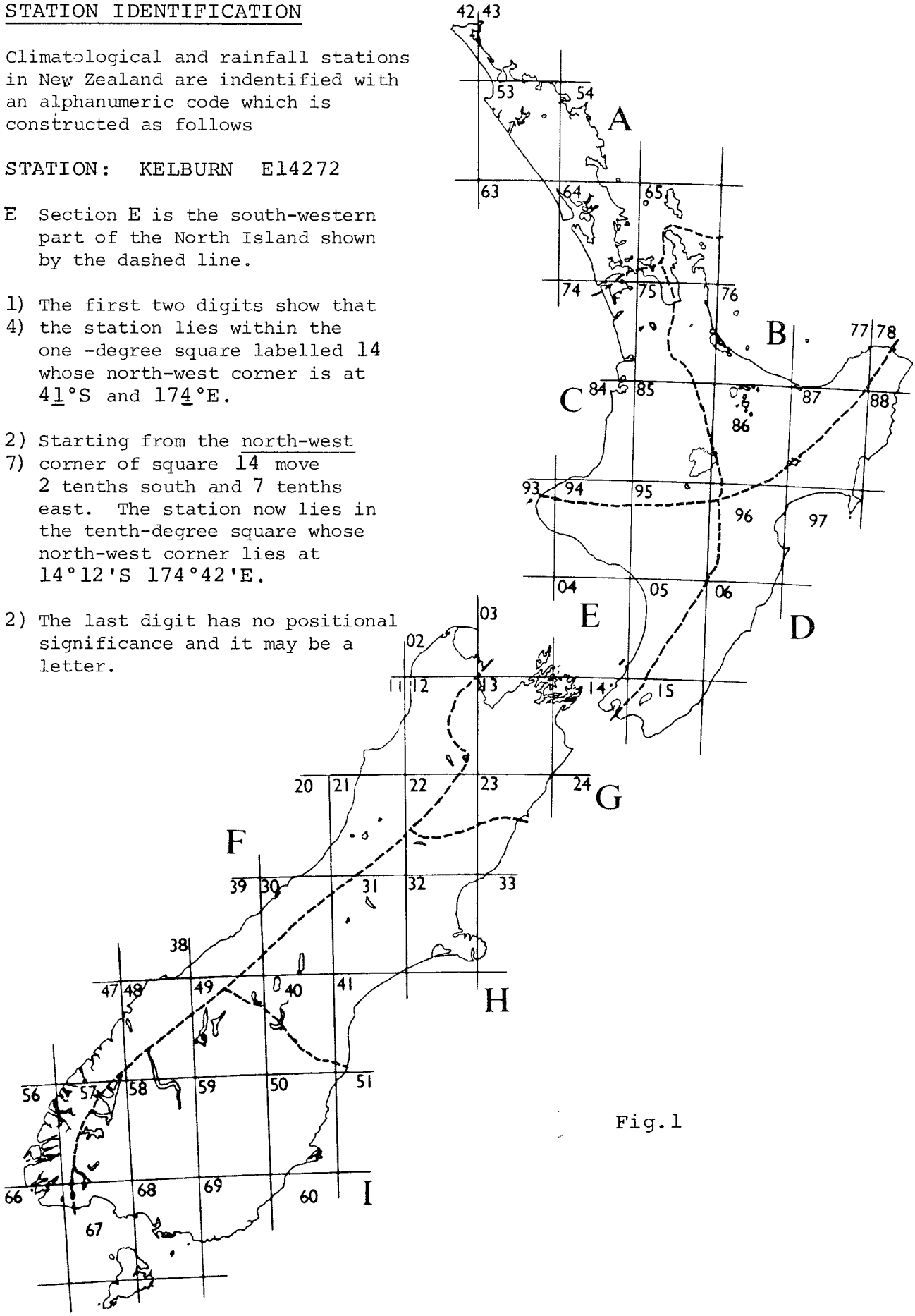

Fig.1

PERCENTILES AND EXTREMES OF ATMOSPHERIC PRESSURE AT SEA LEVEL : STATIONS IN NEW ZEALAND, THE PACIFIC ISLANDS AND ANTARCTICA

Introduction

This publication contains tabulations for the calendar months, the warm and cool seasons and calendar years of atmospheric pressure statistics at stations from the tropics to Antarctica in the New Zealand sector of the Southern Hemisphere. The tables have been derived from data stored on the magnetic tape files of the New Zealand Meteorological Service.

Tables are in the order of their alpha-numeric climatological network designator, the various sections being A to I (New Zealand proper), J (tropical Pacific islands), K (middle latitude islands) and L (Antarctica). The New Zealand sections are as shown in Fig. 1, where the numbers within each section are based on the geographical coordinates of each station. The numbers of stations in the sections J - L are determined by those of the World Meteorological Organisation synoptic network.

The Observations

There are three types of observations from which the data have been extracted; hourly observations, made at Meteorological Service branch offices, synoptic observations - made three or six-hourly at strategic geographical locations and once daily climatological observations made at well spaced climate-monitoring locations. In general the data from the first two types of station are obtainable four times per day and these are averaged to give daily figures which form the basis of the calculations. Not all stations observe at all six-hourly intervals; the times of observation of each station are listed in the appendix. Most climatological observations are made at 9 a.m. local time and as this is a period of diurnal maximum pressure, these figures will be somewhat higher than would have been obtained by averaging four observations per day. The NZST times quoted are the equivalent of the Greenwich Mean Time (GMT) synoptic hours which remain constant from east to west, but there is for example some four hours difference in local time between Pitcairn Island (135°6'W) and Scott Base (166°45'E).

Instruments

All of the readings which have been summarised in this publication were made using mercury barometers. These are nearly all British Meteorological Office Kew-pattern millibar barometers made by the companies of Casella, Short and Mason, Darton, Negretti and Zambra or Hicks. In earlier years the readings were made in inches of mercury but none of these have been used here. The readings at most stations are checked for gross errors against an aneroid open-scale barograph, though the barometer is taken as the standard for fine adjustment of the barograph.

When using mercury barometers various corrections are necessary. These allow for expansion due to heat of the mercury column and the vernier-equipped height scale. The appropriate temperature is determined by means of a thermometer attached to the barometer tube. Corrections are also necessary for the variation in gravity with latitude and altitude. All of these corrections are calculated for various temperatures at each station and a correction card is constructed for that station. Before being assigned to a particular locality each barometer is checked against a standard instrument.

To make pressures comparable from one station to another they must be reduced to a common datum level and mean sea level (m.s.l.) is the datum commonly used as most stations are sited near this level. The reduction of station pressure to mean sea level is governed by the hydrostatic equation,

$$\frac{dp}{dz} = - \rho g$$

which becomes in its integrated form,

$$ln \frac{p}{p_o} = - \frac{g}{R} \int_o^z \frac{1}{T} dz$$

where p, p_o are respective pressures at station level and sea level, R is the gas constant for dry air (287 J $kg^{-1}K^{-1}$), z the height of the station above m.s.l., T the absolute temperature, and g the acceleration due to gravity. Note that for a particular station g is taken as a constant which is appropriate for the small range of heights over which the calculation is applied.

As the variation of temperature with altitude cannot be observed an appropriate assumption is made. For stations at moderate altitude the station temperature is used in the hydrostatic equation and the m.s.l. pressure corresponding is referred to as QFF. Pressures in this publication are all QFF pressures.

The precise methods used for determining m.s.l. pressures are given in the Handbook of Meteorological Instruments (HMSO, 1956). Despite the many corrections needed to adjust an instrumental reading to the appropriate sea-level value, barometric pressure is one of the most reliable of meteorological measurements used in synoptic meteorology.

Structure of the Tables

The middle row of each table is the 50 percentile value or the median. Above and below this are a selection of percentiles consisting of the quintiles and more detailed extremes. The minimum and maximum values observed during the observation period and their dates of occurrence together with the number of observations appropriate for each column are also given.

It should be noted that in the case of hourly, three-hourly or six-hourly observations the figure shown, which is a mean of the available 00, 06, 12 and 1800 hr (NZST) values will probably not be the absolute minimum or maximum observed on that day. Such a figure could only be obtained by inspection of all the observations made. The date printed is, however, the most probable day of true maximum or minimum pressure. When observations are made only at 0900 hrs the extreme values shown will probably have been surpassed at another time of the day.

As well as columns for separate calendar months and the year, additional information has been provided for the six-month "warm" and "cool" seasons. In general there is little difference seasonally in corresponding statistics at a station in middle latitudes but the differences in the tropics are much larger.

The Diurnal Variation of m.s.l. Pressure

The data contained in this publication, as noted in the previous section have been compiled from mean daily pressures. However, mean pressures vary substantially during the day as a result of atmospheric tides. Two pressure maxima and two minima are noted in analyses of mean pressures. The maxima occur in the morning (around 9 a.m.) and evening (between 9 p.m. and midnight). The minima are some six hours out of phase with these times. Because of local heating and cooling the morning pressure maximum is greater than the evening one and the afternoon minimum more prominent than the nocturnal minimum. The tides are caused by the rotation of Earth within the solar ecliptic and the mean amplitude of the variation is greatest in the tropics, about 3 mb*, and diminishes to about 1.5 mb at 50°S. The diurnal variation itself varies seasonally at each locality, due to astronomical and local heating factors. The latitudinal variation of Earth's apparent gravitational field also affects the amount of the local diurnal pressure variation. A detailed discussion of the diurnal variation of surface pressure was given by Haurwitz (1965).

Figure 2 shows the diurnal variation of pressure in the mid-season months at the stations for which hourly observations are available. As the diurnal variations are due partly to surface heating, they are also dependent on the seasons, and the semi-annual variation of this parameter is also depicted. The seasonal variation related to daily amplitude is more important at high latitudes than at the equator, but the absolute differences are small.

Figure 3 shows the magnitude of the 3 p.m. variations of pressure in January and July on the main islands of New Zealand, highlighting the importance of surface heating in determining diurnal pressure variation, both in magnitude and phase. Further details of atmospheric tides have been given by Trenberth (1977).

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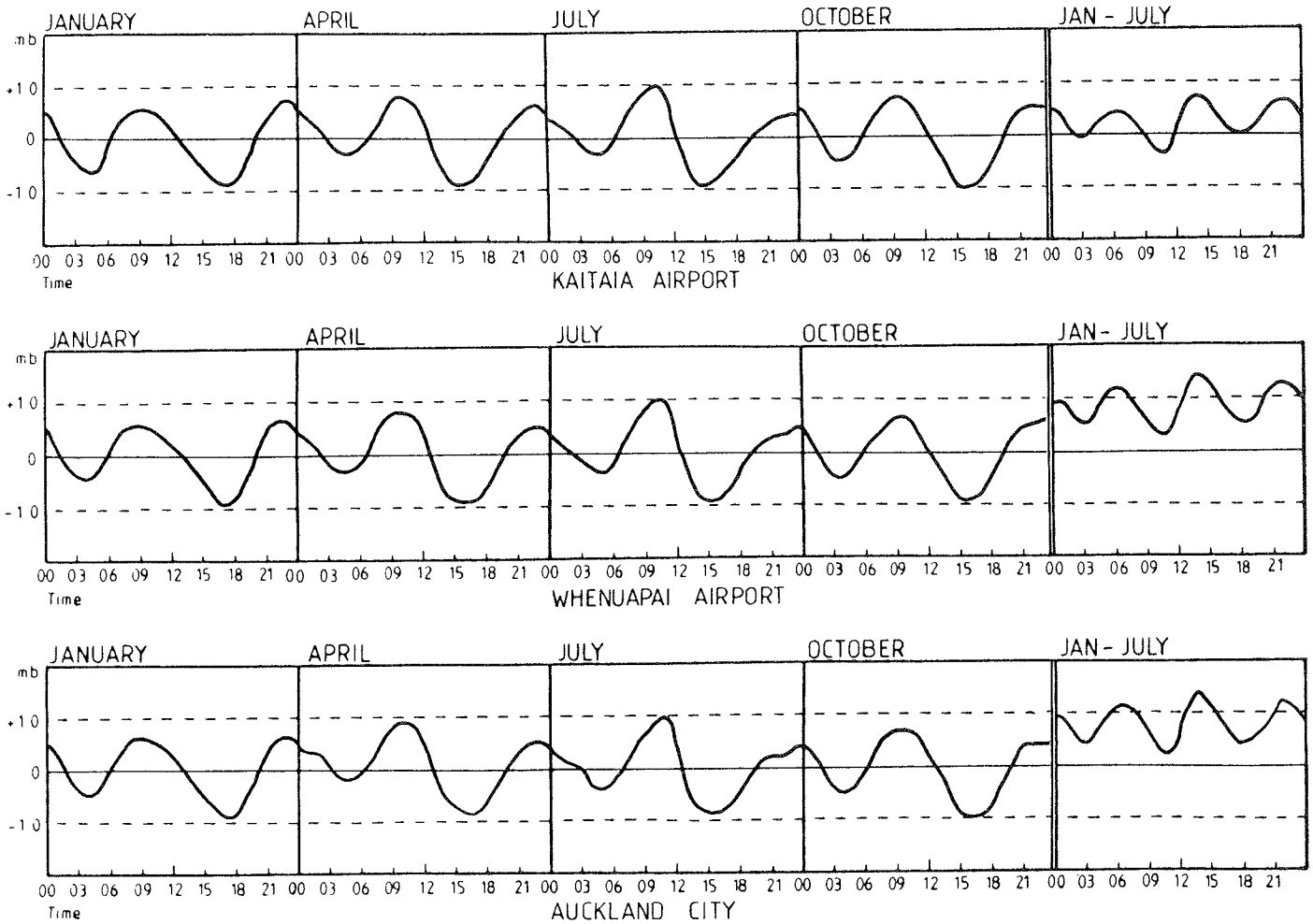
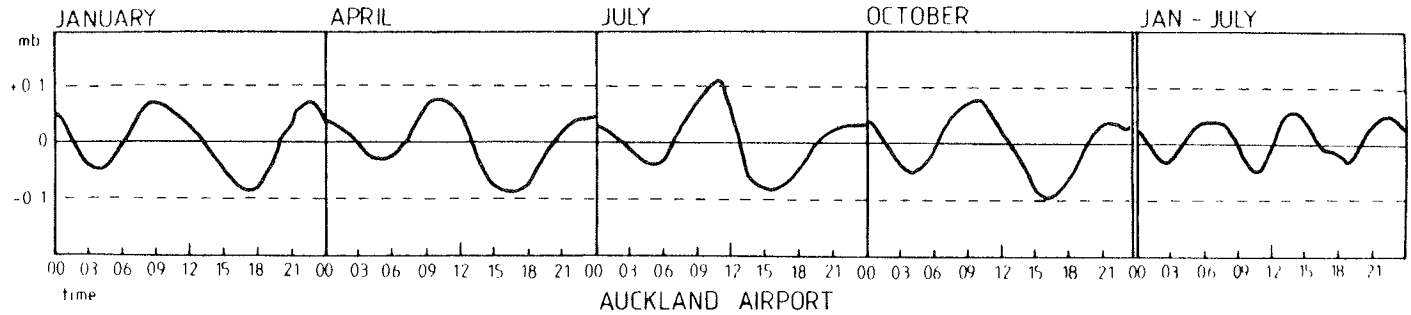
* Since this paper was written the official unit of atmospheric pressure used by the New Zealand Meteorological Service has changed from millibars (mb) to hectopascals (hPa). 1 hPa = 1 mb.

Fig. 2. Diurnal and Seasonal Variations of Pressure.

Hourly variations for mid-season months. The first four diagrams in each row are hourly departures from the daily means in selected months but the seasonal differences are differences in absolute means for paticular hours in January and July. (Note that the scales of the last column are changed at very low and high latitudes where mean January pressures are consistently lower than in July).





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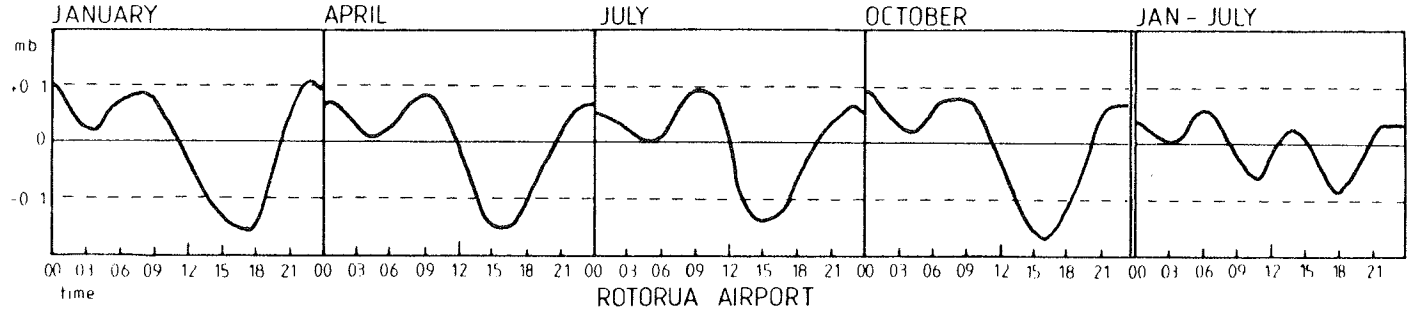

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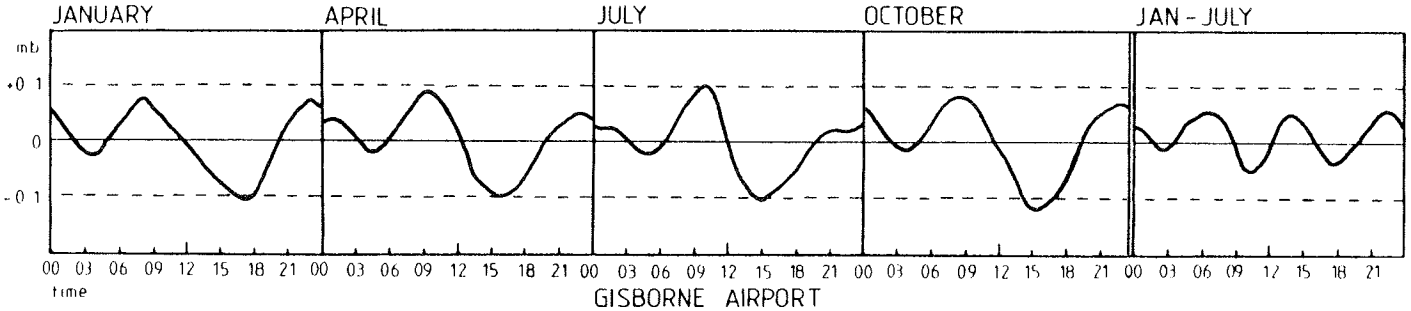

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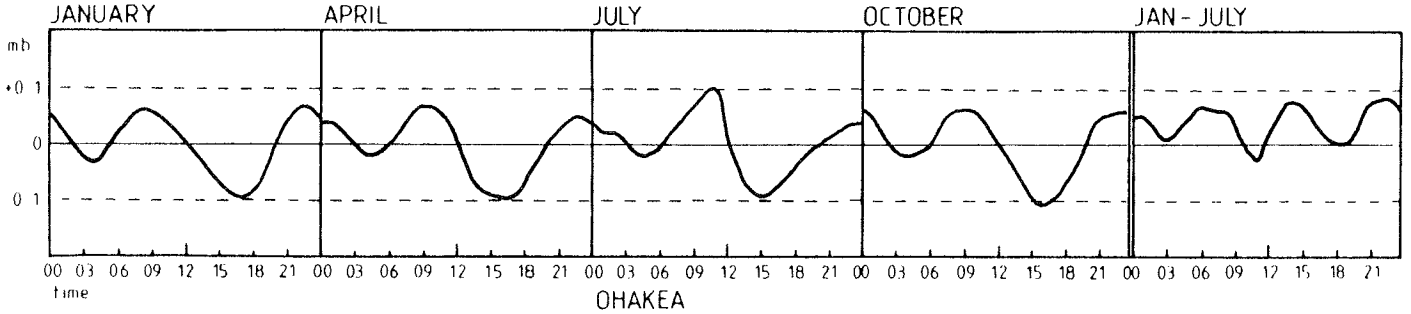

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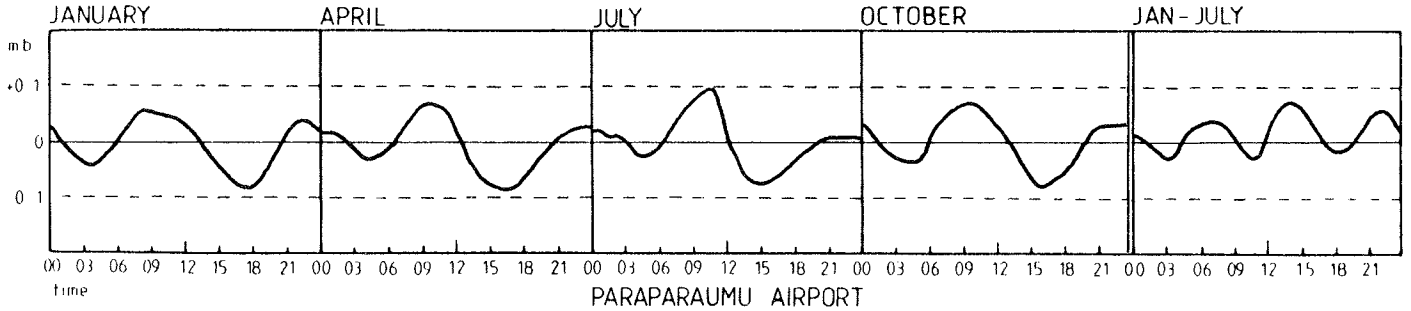

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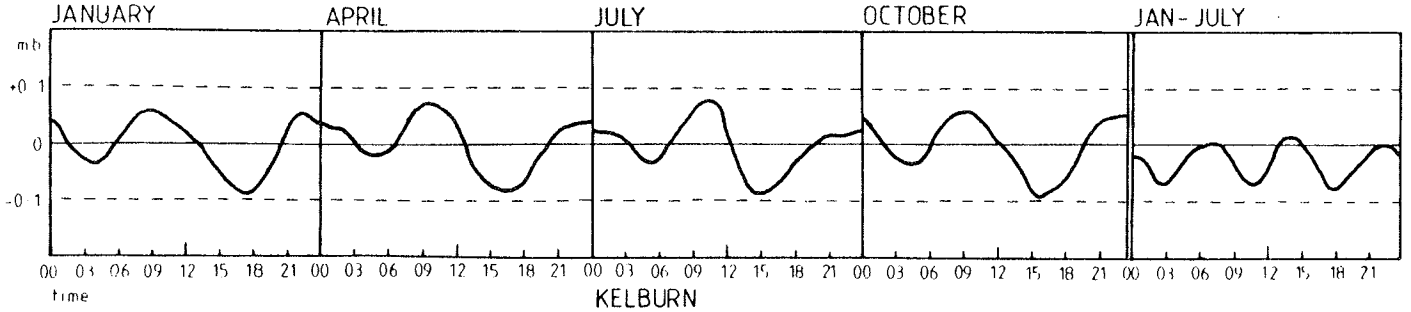
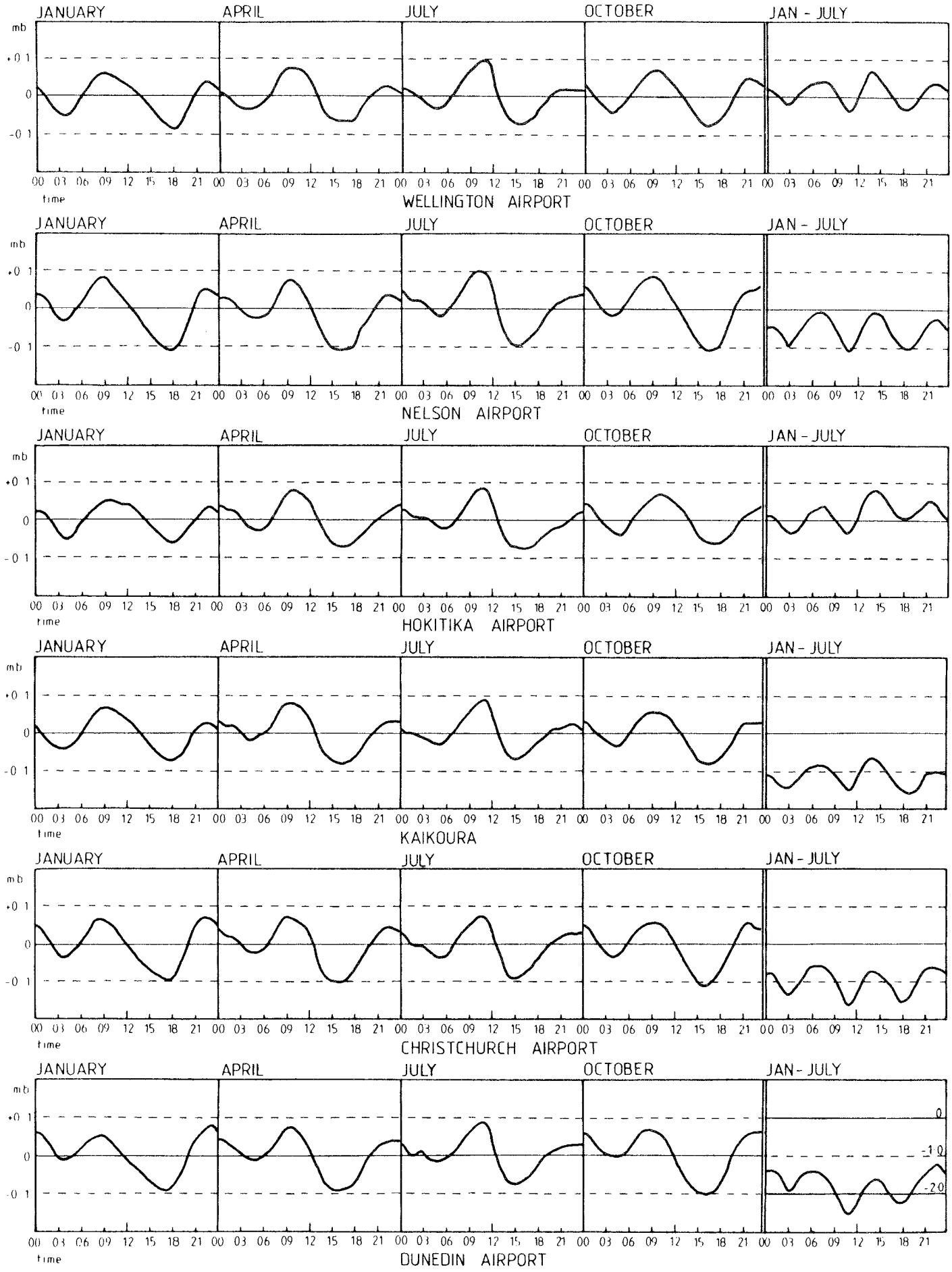


KELBURN


JANUARY
APRIL
JULY
OCTOBER
JAN - JULY
mb
+0 1
0
-0 1
00 03 06 09 12 15 18 21
time
WELLINGTON AIRPORT
NELSON AIRPORT
HOKITIKA AIRPORT
KAIKOURA
CHRISTCHURCH AIRPORT
DUNEDIN AIRPORT
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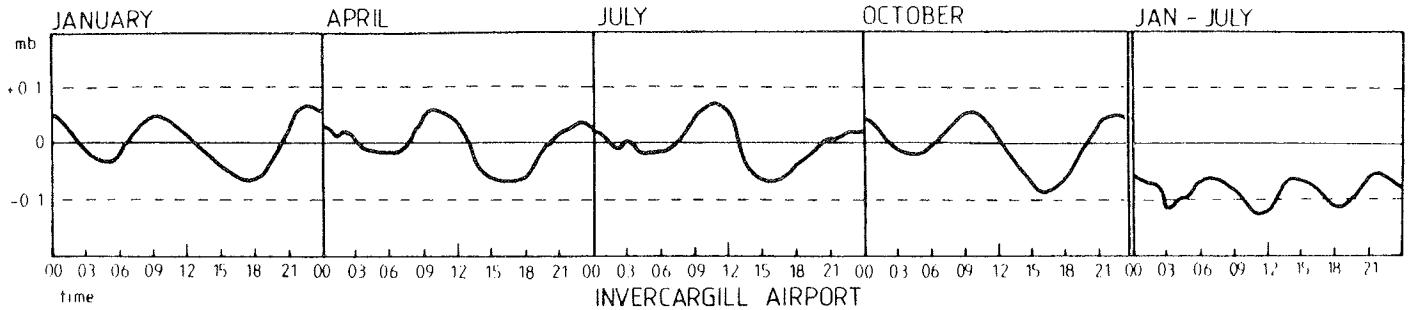
-1 0
-2 0



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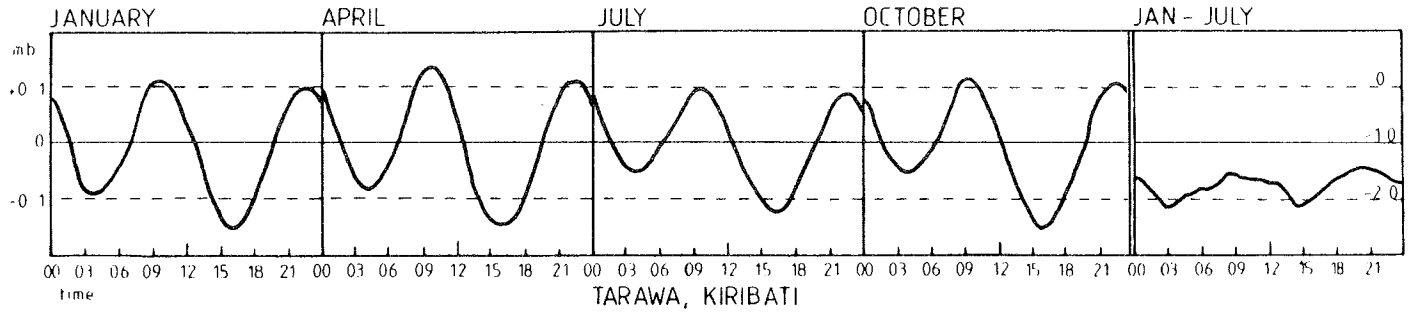

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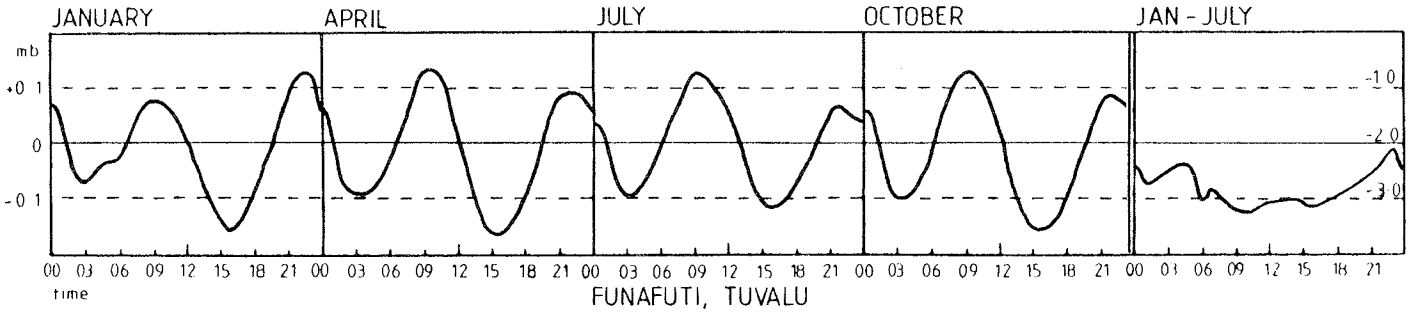

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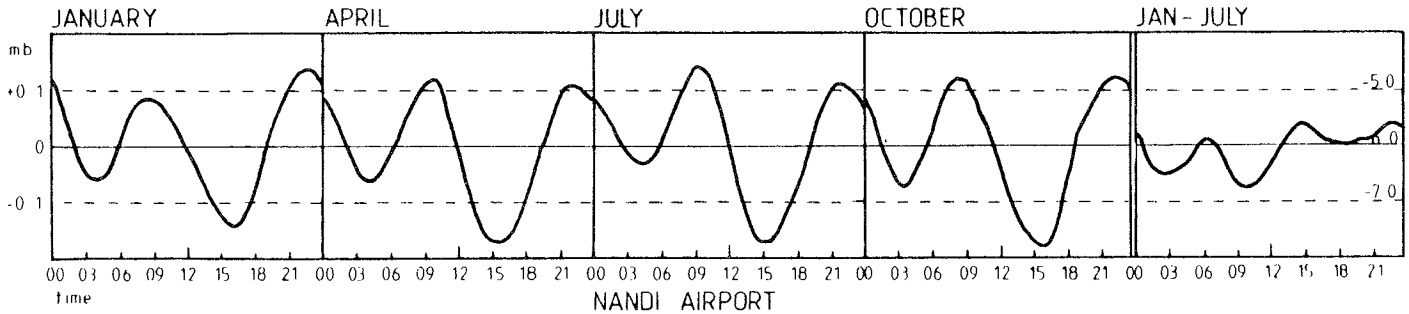

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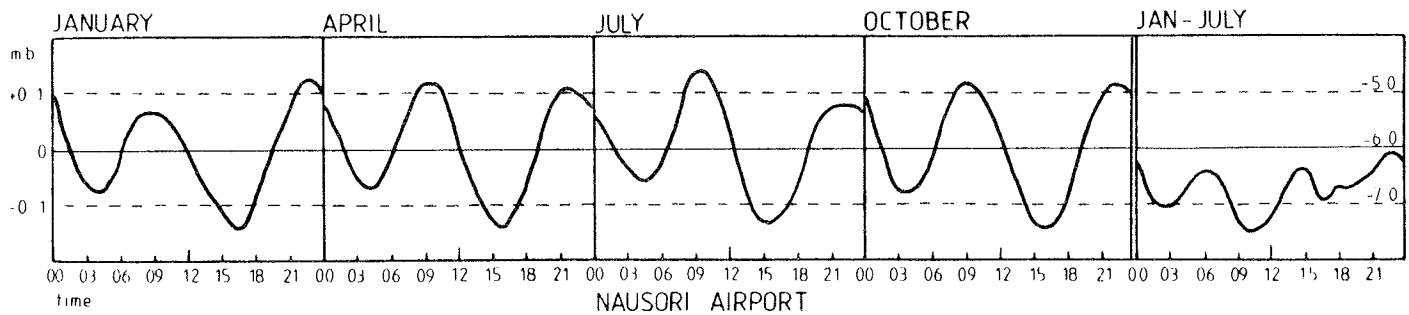

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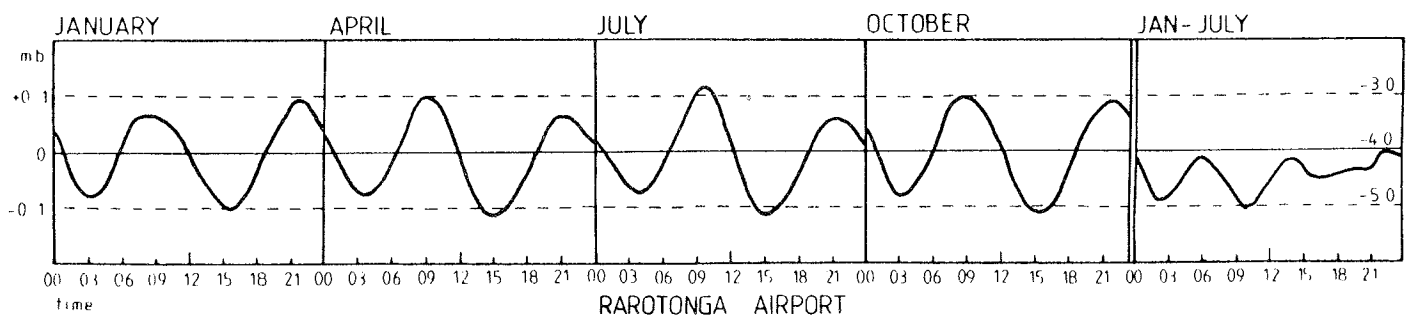

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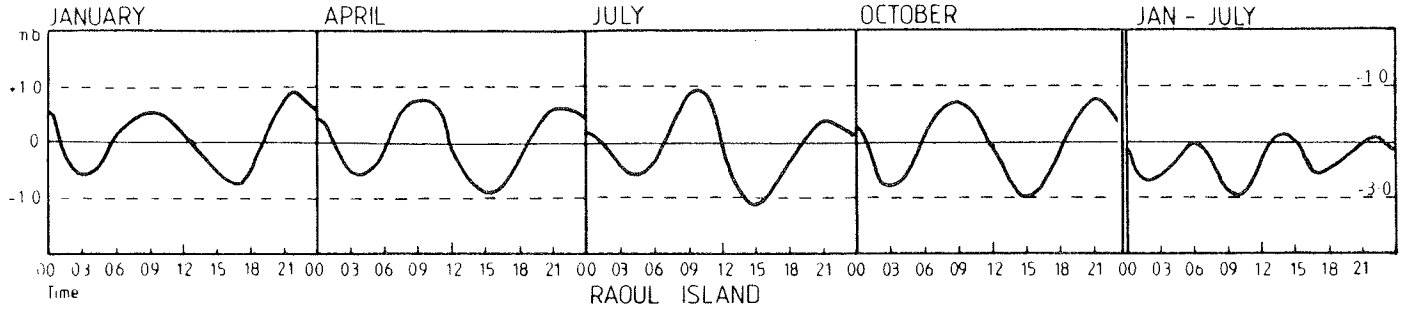

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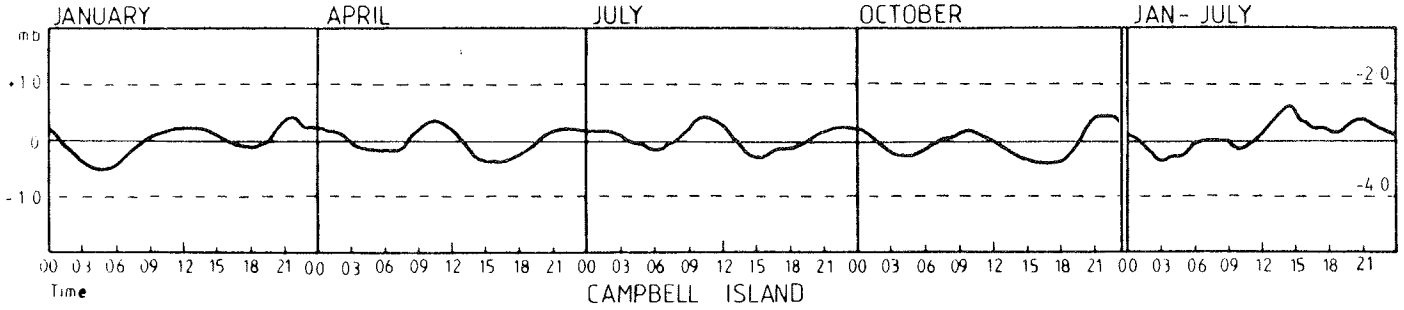

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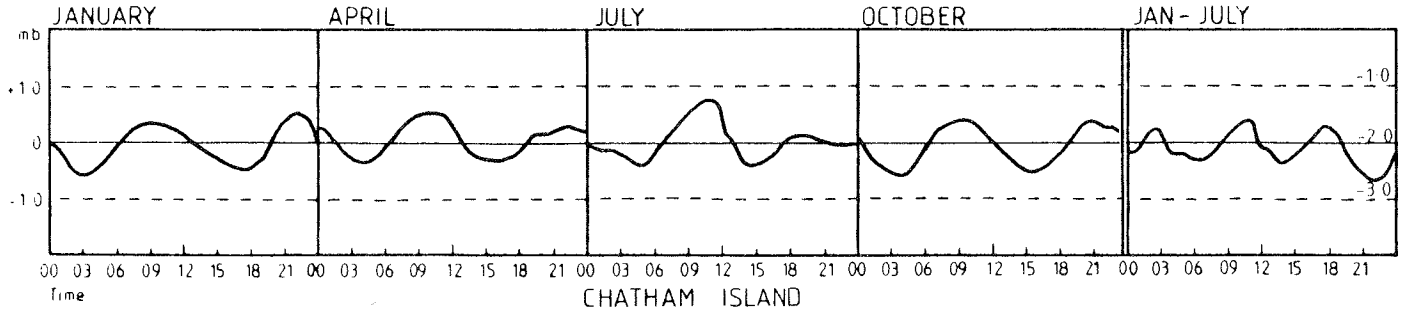
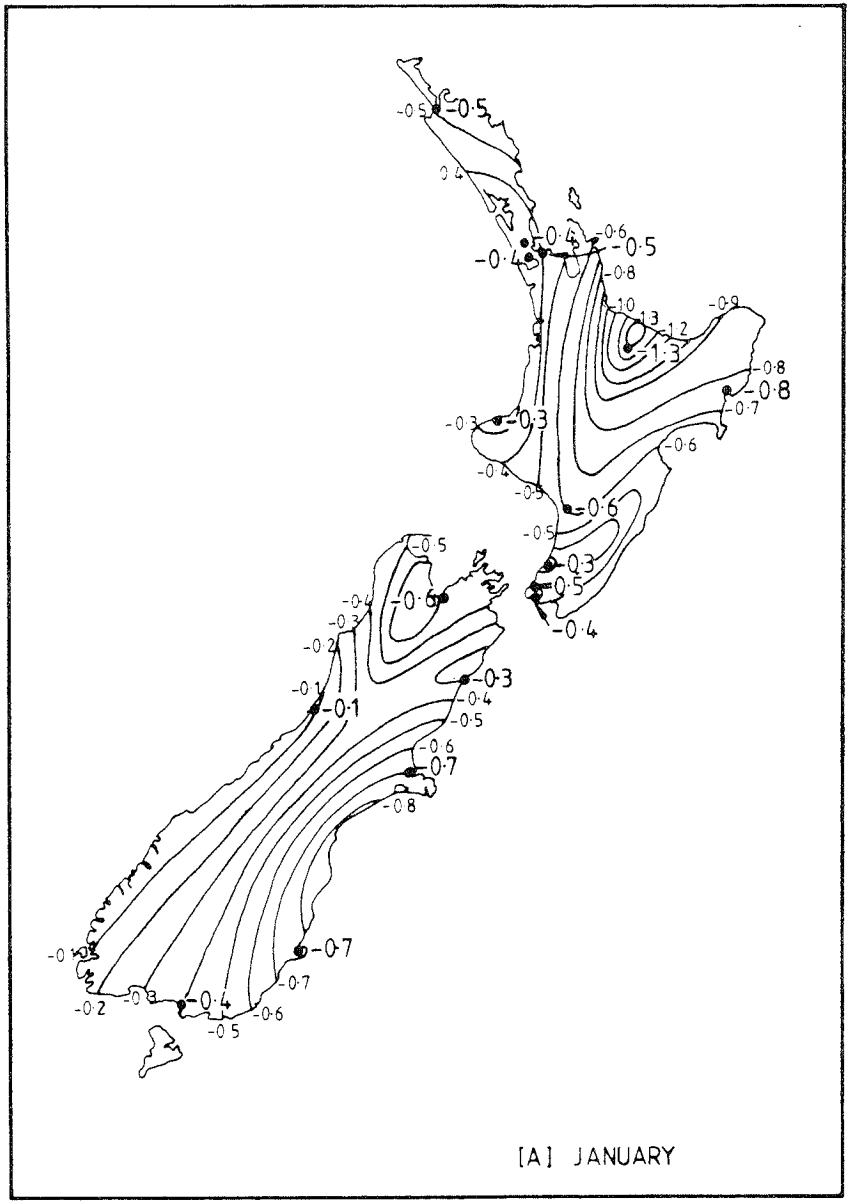


CHATHAM ISLAND

Inset 2



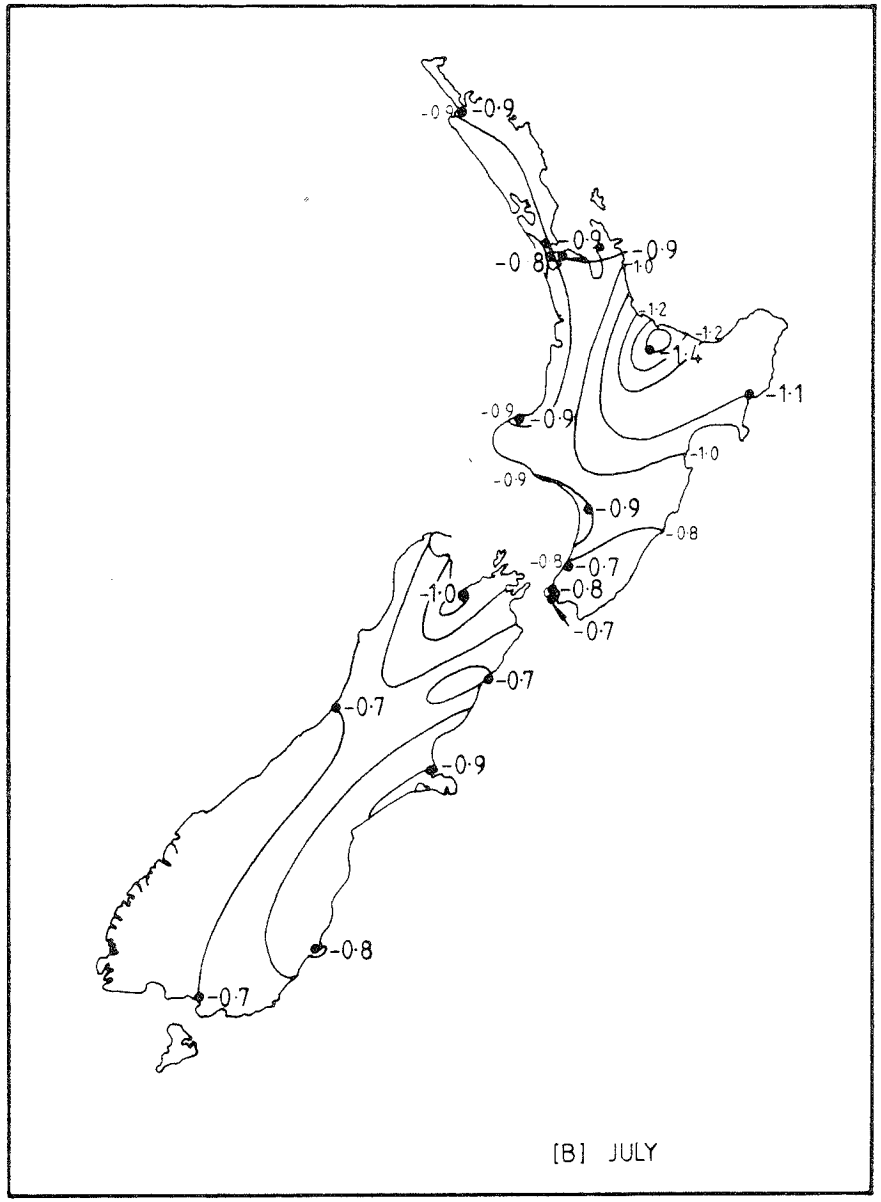


FIG. 3: DEPARTURE OF 3 P.M MEAN SEA LEVEL PRESSURE FROM DAILY MEAN IN: [A] JANUARY AND [B] JULY (mbs)

The Latitudinal Variation of Pressures

The stations whose data are presented in this publication span almost 80 degrees of latitude and therefore cover almost the complete range of Southern Hemisphere meteorological regimes. The absolute range of pressure recorded at Tarawa (1°21'N) is only 10.4 mb. Equatorial latitudes are not affected by cyclonic storms which cause very low minimum pressures in other tropical regions.

The greatest absolute pressure range (90.9 mb) in the tables occurs at Scott Base (77°51'S). This site can be affected by the very deep depressions of the Southern Ocean. Such depressions can have central pressures similar to those occurring in the tropics. Dense cold polar air occurring with anticyclonic conditions accounts for the high pressures observed at Scott Base.

Middle latitudes experience none of the above extreme phenomena and the absolute pressure ranges there are intermediate between those of the equator and the sub-polar region.

Calculation of the Statistics

The p^{th} percentile value, X_p, is defined as the $p(n + 1)/100^{th}$ value of the sequence of observed values when arranged in ascending order of magnitude. n is the number of observations used. In most cases $p(n + 1)/100$ is not an integer and X_p is taken as the average of the observed values whose ordinal numbers are immediately adjacent.

The mean, m, is as usual, defined as

$$m = \sum X/n$$

s, the standard deviation of the values in particular months, seasons or years is computed as

$$s = \left[(\sum X^2 - nm^2)/(n - 1) \right]^{\frac{1}{2}}$$

Although not tabulated, the coefficient of variation (cv), of the values in any column is defined as

$$cv = s/m$$

Min and Max are the least and greatest of the respective daily values from which the percentiles are determined and the day, month and year of each extreme is printed adjacent to it.

Standard Errors of the Percentiles

The main statistics tabulated give a good indication of the frequency distribution of the relevant totals in the sample analysed, (and within the limits of the sampling error, the population to which the sample belongs). They should provide useful estimates of expected values at specified levels of probability. The tables include the estimated means and standard deviations which respectively define the general levels and dispersion of the quantities concerned (N.Z.Met.S., 1979).

The gamma distribution density function is defined as

$$g(x) = x^{r-1} e^{-x/b} / b^r \lceil r$$

A measure of the skewness of the frequency distributions is given by the estimated shape parameter r of the gamma distribution. The gamma "shape" r is such that

$$r \simeq \left[1 + (1 + 4c/3)^{\frac{1}{2}} \right] / 4c$$

where

$$c = \ln(\sum X/n) - (\sum \ln X)/n$$

$$= \ln(m/g).$$

g is the geometric mean $(X_1, X_2 \ldots\ldots X_n)^{1/n}$

The first three central moments of a variable with distribution g(x) are:

$$m_1 = r\,b = m$$
$$m_2 = rb^2 = s^2$$
$$m_3 = 2rb^3$$

Thus the coefficient of variation is

$$cv = s/m = 1/\sqrt{r}$$

and the coefficient of skewness

$$m_3/s^3 = 2/\sqrt{r}$$

These can be readily calculated from the values given.

Although the individual value X may have a skew distribution, the mean value m_i for various samples of the population will be more normally distributed with the variance s^2/n.

The percentiles are asymptotically normally distributed with standard error $se_p = \sqrt{pq/n}/100g(x)$.

where q = 100-p (Cramer p.369)

The X appropriate to a particular value of r can be obtained by interpolation, from a related variable, using Pearson's Tables of the Incomplete Gamma Function, and se_p calculated. However, it is easier to interpolate graphically for a particular value of r on the values of se_p for integer values of r calculated from the more readily accessible chi-square distribution tables.

The variable y = 2x/b has probability density function

$$h_{2r}(y) = y^{r-1} e^{-y/2} \Big/ 2^r \lceil r$$

which is the chi-square density with 2r degrees of freedom for integer values of r.

Inset 2 -

y_p are the usual tabulations for chi-square and since $x = (b/2)y$

$$se_p = (b/2)\sqrt{pq/n} \;/\; 100h(y)$$
$$= (sd/\sqrt{n}) * (\sqrt{pq/r})/200h(y_p)$$
$$= \text{std. error of mean} * F_p.$$

Chi-square may not be tabulated for $r > 15$ (30 d.o.f.) but the approximation

$$y_p = 2r(1 + z_p/3\sqrt{r})^3$$

can be used where z_p is the percentile of the standardised normal distribution.

In Table 1 values of F_p are given for selected values of $1/\sqrt{r}$ as well as the limiting value for r infinite when the distribution becomes normal.

Table 1: Values of F_p

	Percentile										
$1/\sqrt{r}$ *	5	10	20	30	40	50	60	70	80	90	95
0.9	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.5	1.9	2.9	4.1
0.8	0.5	0.6	0.7	0.8	1.0	1.1	1.3	1.6	1.9	2.7	4.0
0.6	0.8	0.8	0.9	1.0	1.0	1.2	1.3	1.5	1.8	2.5	3.3
0.4	1.2	1.1	1.1	1.1	1.1	1.2	1.3	1.5	1.7	2.3	3.0
0.2	1.5	1.4	1.3	1.2	1.2	1.2	1.3	1.4	1.6	2.0	2.9
0.0	2.1	1.7	1.4	1.3	1.3	1.3	1.3	1.3	1.4	1.7	2.1

* $1/\sqrt{r} = s/m$

For example Table 2 gives estimates of the standard errors of percentiles for Cape Reinga where $1/\sqrt{r}$ (or s/m) = 5.3×10^{-3} in January or 7.2×10^{-3} for annual values when gamma distributions are assumed. The resolution in Table 2 is simply to demonstrate the symmetric variation in standard errors although they should be realistically rounded to whole digits.

Table 2: Selected Percentile Values (X_p) and Standard Errors (SE_p) for Cape Reinga MSL Pressure (0.1 mb) for January and the Year*.

Percentile	5	20	50	80	95
January					
X_p	10018	10108	10153	10194	10243
F_p	2.1	1.4	1.3	1.4	2.1
SE_p(tenth mb)	4.8	3.2	3.0	3.2	4.8
Year					
X_p	10026	10099	10162	10219	10264
F_p	2.1	1.4	1.3	1.4	2.1
SE_p(tenth mb)	1.9	1.3	1.2	1.3	1.9

* Statistics derived from percentile tabulation.

	January	Year
$SE_m(s/\sqrt{n})$	2.3	0.9
$1/\sqrt{r}(s/m)$	5.3×10^{-3}	7.2×10^{-3}

Acknowledgements

The tabulations were computed in the Research Branch, New Zealand Meteorological Service. Mr J.W.D. Hessell supervised the preparation of this publication and Mr A.C. Penney carried out the programming required. The notes on the gamma and chi-square distributions were written by Dr K.J.A. Revfeim who also compiled Table 1, and Mrs B. Collen drafted Figs 2 and 3.

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PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION A42461 CAPE REINGA LAT 34 25S LONG 172 41E HT 191M

DATA PERIOD 5 1961 TO 3 1979
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	558	508	558	540	558	540	558	558	540	558	540	558	3262	3312	6574
DATE	08/01	02/02	03/03	09/04	07/05	08/06	19/07	06/08	03/09	23/10	17/11	07/12	17/11	19/07	19/07
YR	1977	1967	1965	1968	1961	1961	1978	1974	1975	1971	1971	1968	1971	1978	1978
MIN	9898	9978	9946	9910	9921	9898	9782	9844	9916	9894	9833	10012	9833	9782	9782
2.5	10024	10057	10013	9993	9990	9951	9964	9976	9993	10007	10008	10041	10025	9982	9998
5	10056	10073	10048	10034	10010	9986	9998	10008	10023	10034	10043	10059	10054	10010	10026
20	10110	10123	10116	10106	10086	10073	10061	10078	10098	10116	10105	10096	10109	10086	10099
40	10143	10155	10160	10149	10147	10135	10125	10136	10143	10158	10153	10128	10148	10142	10145
50	10157	10168	10177	10171	10165	10156	10149	10159	10160	10180	10166	10143	10162	10162	10162
60	10167	10181	10193	10184	10185	10176	10172	10184	10181	10198	10180	10159	10178	10184	10181
80	10195	10207	10221	10219	10231	10222	10227	10237	10229	10239	10217	10194	10210	10230	10219
95	10229	10234	10248	10257	10270	10275	10282	10300	10275	10279	10257	10229	10245	10279	10264
97.5	10239	10243	10255	10275	10288	10293	10309	10321	10294	10301	10267	10250	10257	10300	10282
MAX	10274	10268	10289	10305	10318	10329	10365	10360	10344	10336	10304	10308	10308	10365	10365
DATE	17/01	28/02	13/03	15/04	19/05	15/06	05/07	07/08	10/09	05/10	04/11	13/12	13/12	05/07	05/07
YR	1978	1973	1978	1975	1967	1963	1969	1978	1965	1973	1961	1966	1966	1969	1969
MEAN	10150	10164	10168	10160	10158	10146	10145	10157	10159	10173	10159	10144	10157	10156	10157
S.D.	54	49	62	69	79	87	90	88	76	74	68	53	60	83	73

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION A53021 KAITAIA AIRPORT LAT 35 4S LONG 173 17E HT 80M

DATA PERIOD 3 1962 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	558	537	589	570	589	570	589	589	570	589	570	589	3413	3496	6909
DATE	08/01	03/02	03/03	19/04	24/05	18/06	19/07	06/08	20/09	23/10	17/11	20/12	17/11	19/07	19/07
YR	1977	1967	1965	1978	1966	1978	1978	1974	1971	1971	1971	1976	1971	1978	1978
MIN	9931	9999	9946	9904	9914	9877	9805	9846	9899	9892	9821	10001	9821	9805	9805
2.5	10018	10060	10010	10012	9992	9957	9969	9969	9997	10003	10005	10028	10024	9982	9997
5	10055	10076	10051	10035	10015	9986	9997	10000	10017	10035	10040	10051	10052	10009	10026
20	10108	10121	10119	10107	10095	10079	10063	10076	10097	10111	10105	10093	10108	10086	10099
40	10141	10157	10161	10152	10150	10140	10127	10132	10142	10154	10150	10126	10148	10142	10145
50	10153	10169	10179	10173	10170	10162	10154	10160	10160	10175	10164	10143	10162	10164	10163
60	10167	10183	10193	10189	10193	10183	10176	10189	10179	10195	10175	10157	10178	10187	10181
80	10194	10207	10224	10224	10237	10231	10231	10245	10230	10235	10214	10189	10210	10234	10221
95	10230	10239	10253	10259	10281	10280	10293	10301	10272	10274	10250	10227	10246	10264	10267
97.5	10243	10249	10262	10278	10305	10303	10315	10325	10292	10297	10264	10244	10259	10305	10287
MAX	10272	10273	10305	10308	10330	10334	10373	10370	10356	10338	10284	10311	10311	10373	10373
DATE	17/01	28/02	29/03	16/04	19/05	16/06	05/07	07/08	10/09	05/10	17/11	13/12	13/12	05/07	05/07
YR	1978	1973	1967	1975	1967	1963	1969	1978	1965	1973	1969	1966	1966	1969	1969
MEAN	10149	10164	10169	10162	10164	10153	10148	10158	10159	10170	10156	10141	10157	10159	10158
S.D.	55	49	62	70	80	88	93	93	77	73	66	55	61	85	74

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION A54733 WHANGAREI AIRPORT LAT 35 46S LONG 174 22E HT 37M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	278	270	279	1632	1655	3287
DATE	09/01	07/02	15/03	19/04	26/05	15/06	19/07	05/08	04/09	09/10	09/11	14/12	19/04	05/08	05/08
YR	1977	1976	1980	1978	1977	1975	1978	1974	1975	1974	1980	1977	1978	1974	1974
MIN	9926	10001	9940	9859	9959	9875	9844	9832	9935	9937	9947	10002	9859	9832	9832
2.5	9984	10060	10016	9997	10002	9970	9976	9949	9988	10013	10032	10019	10021	9978	9993
5	10031	10087	10069	10027	10023	9983	9993	9977	10002	10048	10054	10033	10050	10001	10017
20	10110	10130	10133	10108	10108	10065	10052	10064	10091	10109	10114	10079	10110	10081	10097
40	10140	10166	10165	10157	10157	10146	10115	10115	10141	10153	10153	10113	10148	10141	10145
50	10153	10177	10185	10182	10180	10166	10149	10144	10161	10169	10167	10130	10165	10163	10164
60	10169	10191	10206	10201	10202	10193	10176	10171	10181	10191	10182	10149	10182	10187	10184
80	10204	10216	10240	10239	10244	10237	10237	10236	10226	10236	10222	10183	10220	10236	10226
95	10247	10259	10272	10273	10293	10288	10285	10297	10276	10276	10258	10221	10258	10287	10273
97.5	10262	10268	10283	10283	10320	10309	10316	10323	10304	10295	10263	10236	10271	10309	10290
MAX	10285	10288	10301	10325	10346	10335	10379	10386	10354	10364	10291	10254	10325	10386	10386
DATE	17/01	28/02	13/03	16/04	09/05	04/06	04/07	08/08	13/09	05/10	08/11	08/12	16/04	08/08	08/08
YR	1978	1973	1978	1975	1980	1974	1973	1978	1975	1973	1978	1975	1975	1978	1978
MEAN	10151	10174	10182	10169	10175	10154	10144	10145	10155	10169	10164	10130	10161	10157	10159
S.D.	63	51	63	76	80	95	95	100	81	71	61	56	65	88	77

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION A55911 MOKOHINAU LAT 35 54S LONG 175 7E HT 102M

DATA PERIOD 4 1961 TO 3 1979
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	558	508	558	540	558	540	558	558	540	558	540	558	3262	3312	6574
DATE	08/01	03/02	03/03	19/04	24/05	15/06	20/07	06/08	20/09	23/10	17/11	29/12	17/11	20/07	17/11
YR	1977	1967	1965	1978	1966	1975	1978	1974	1971	1971	1971	1966	1971	1978	1971
MIN	9933	9949	9916	9880	9870	9857	9854	9860	9908	9894	9803	9994	9803	9854	9803
2.5	10014	10041	10014	9987	9971	9939	9961	9957	9986	9991	9996	10023	10014	9970	9987
5	10047	10069	10035	10025	9997	9985	9980	9989	10012	10026	10031	10040	10041	9996	10016
20	10104	10123	10120	10098	10076	10058	10048	10069	10088	10102	10092	10089	10104	10073	10090
40	10137	10157	10166	10146	10139	10126	10118	10127	10133	10153	10143	10122	10145	10133	10140
50	10151	10174	10181	10165	10156	10151	10147	10154	10152	10172	10161	10139	10162	10156	10159
60	10165	10188	10197	10184	10181	10170	10170	10187	10175	10191	10177	10157	10179	10180	10179
80	10195	10212	10228	10221	10223	10221	10229	10243	10225	10235	10215	10196	10213	10230	10220
95	10235	10243	10259	10263	10265	10281	10290	10302	10272	10277	10254	10233	10251	10282	10265
97.5	10250	10254	10273	10279	10295	10307	10314	10326	10290	10299	10273	10253	10263	10306	10287
MAX	10272	10288	10322	10309	10330	10337	10372	10378	10350	10344	10294	10302	10322	10378	10378
DATE	17/01	28/02	29/03	24/04	19/05	19/06	28/07	08/08	10/09	05/10	24/11	13/12	29/03	08/08	08/08
YR	1978	1973	1967	1962	1967	1966	1967	1978	1965	1973	1961	1966	1967	1978	1978
MEAN	10148	10166	10172	10157	10150	10141	10140	10153	10152	10166	10154	10140	10156	10150	10153
S.D.	58	53	65	74	82	92	96	95	79	78	72	60	65	88	77

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PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION A64282 LEIGH LAT 36 16S LONG 174 48E HT 27M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	279	270	279	1632	1656	3288
DATE	09/01	21/02	15/03	19/04	03/05	15/06	20/07	05/08	04/09	09/10	09/11	19/12	19/04	20/07	20/07
YR	1977	1976	1980	1978	1977	1975	1978	1974	1975	1974	1980	1976	1978	1978	1978
MIN	9920	10018	9961	9843	9946	9850	9838	9848	9914	9948	9934	9982	9843	9838	9838
2.5	9994	10051	10030	9986	10007	9957	9964	9942	9982	10007	10016	10012	10018	9970	9988
5	10024	10073	10079	10035	10021	9981	9980	9974	10003	10044	10046	10029	10044	9997	10013
20	10108	10125	10134	10114	10109	10068	10044	10059	10097	10109	10119	10079	10111	10083	10098
40	10138	10161	10174	10161	10158	10148	10113	10114	10142	10158	10154	10114	10150	10145	10148
50	10156	10175	10189	10186	10179	10169	10151	10150	10163	10174	10169	10133	10167	10166	10166
60	10170	10190	10206	10198	10203	10187	10182	10180	10182	10194	10184	10150	10185	10188	10186
80	10209	10218	10245	10239	10248	10240	10241	10236	10225	10238	10223	10185	10221	10236	10228
95	10258	10261	10282	10276	10296	10295	10287	10304	10282	10276	10259	10226	10264	10291	10277
97.5	10271	10272	10286	10291	10326	10309	10325	10332	10301	10299	10275	10238	10278	10312	10294
MAX	10290	10298	10311	10327	10369	10337	10379	10397	10359	10362	10291	10253	10327	10397	10397
DATE	17/01	28/02	14/03	15/04	09/05	21/06	03/07	07/08	13/09	05/10	08/11	04/12	15/04	07/08	07/08
YR	1978	1973	1978	1975	1980	1973	1973	1978	1975	1973	1978	1980	1975	1978	1978
MEAN	10154	10171	10186	10171	10176	10156	10143	10146	10155	10172	10166	10130	10163	10158	10160
S.D.	65	55	63	79	81	97	100	102	82	72	63	59	67	90	79

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION A64761 WHENUAPAI LAT 36 47S LONG 174 38E HT 26M

DATA PERIOD 1 1960 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	620	565	620	630	651	630	651	651	630	651	630	651	3716	3864	7580
DATE	17/01	03/02	03/03	19/04	24/05	15/06	20/07	06/08	20/09	23/10	17/11	07/12	17/11	20/07	17/11
YR	1980	1967	1965	1978	1966	1975	1978	1974	1971	1971	1971	1960	1971	1978	1971
MIN	9920	9954	9926	9854	9862	9855	9840	9849	9899	9915	9803	9971	9803	9840	9803
2.5	10013	10054	10013	9990	9985	9951	9957	9960	9989	9996	9987	10011	10012	9972	9987
5	10043	10070	10042	10029	10007	9984	9980	9989	10012	10032	10029	10034	10040	9994	10014
20	10105	10124	10117	10104	10081	10062	10045	10067	10085	10102	10093	10085	10103	10074	10090
40	10137	10157	10166	10151	10141	10133	10118	10126	10130	10153	10139	10125	10145	10136	10141
50	10152	10176	10181	10174	10164	10154	10148	10159	10153	10175	10158	10141	10162	10159	10161
60	10165	10189	10198	10190	10191	10176	10176	10191	10173	10192	10172	10159	10180	10183	10182
80	10198	10213	10231	10230	10233	10231	10237	10247	10224	10236	10214	10196	10215	10235	10223
95	10244	10246	10261	10273	10279	10291	10301	10307	10278	10283	10257	10233	10255	10290	10272
97.5	10255	10260	10277	10288	10311	10312	10323	10327	10295	10302	10274	10249	10270	10310	10294
MAX	10273	10293	10336	10319	10341	10347	10382	10389	10360	10343	10303	10302	10336	10389	10389
DATE	17/01	28/02	29/03	24/04	19/05	19/06	28/07	07/08	10/09	05/10	04/11	13/12	29/03	07/08	07/08
YR	1978	1973	1967	1962	1967	1966	1967	1978	1965	1973	1961	1966	1967	1978	1978
MEAN	10149	10168	10172	10164	10157	10147	10143	10155	10151	10168	10152	10139	10157	10154	10155
S.D.	59	54	67	76	84	94	100	98	80	77	72	62	67	90	79

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION A64878 AUCKLAND CITY LAT 36 51S LONG 174 46E HT 45M

DATA PERIOD 12 1961 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	589	537	589	570	589	570	589	589	570	589	570	620	3475	3496	6971
DATE	17/01	03/02	03/03	19/04	24/05	15/06	20/07	06/08	20/09	23/10	17/11	29/12	17/11	20/07	17/11
YR	1980	1967	1965	1978	1966	1975	1978	1974	1971	1971	1971	1966	1971	1978	1971
MIN	9923	9949	9922	9854	9861	9854	9841	9850	9902	9913	9801	9987	9801	9841	9801
2.5	10010	10048	10014	9984	9983	9954	9954	9951	9989	9988	9987	10014	10010	9971	9986
5	10039	10068	10039	10025	10007	9983	9981	9986	10011	10024	10028	10035	10038	9995	10014
20	10105	10123	10117	10100	10084	10062	10045	10066	10084	10098	10092	10067	10103	10074	10091
40	10138	10158	10166	10150	10142	10134	10122	10124	10130	10150	10139	10126	10145	10135	10141
50	10153	10176	10186	10170	10166	10157	10152	10156	10152	10171	10157	10142	10162	10159	10161
60	10166	10191	10199	10188	10192	10180	10178	10188	10174	10188	10173	10158	10180	10183	10181
80	10199	10214	10232	10227	10236	10233	10238	10249	10225	10231	10213	10196	10215	10234	10223
95	10245	10248	10262	10271	10278	10294	10301	10309	10280	10273	10253	10233	10255	10290	10271
97.5	10255	10261	10279	10286	10312	10315	10327	10333	10294	10297	10267	10252	10269	10311	10293
MAX	10271	10294	10338	10321	10342	10348	10381	10389	10358	10344	10291	10302	10338	10389	10389
DATE	26/01	28/02	29/03	24/04	19/05	19/06	28/07	07/08	10/09	05/10	11/11	13/12	29/03	07/08	07/08
YR	1978	1973	1967	1962	1967	1966	1967	1978	1965	1973	1969	1966	1967	1978	1978
MEAN	10150	10168	10173	10161	10159	10150	10144	10153	10151	10163	10150	10140	10157	10153	10155
S.D.	60	55	67	77	85	95	100	100	81	76	72	61	67	90	79

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION B76621 TAURANGA AIRPORT LAT 37 40S LONG 176 12E HT 4M

DATA PERIOD 4 1964 TO 3 1979
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	465	423	465	435	447	450	465	465	450	465	450	465	2703	2742	5445
DATE	09/01	03/02	03/03	19/04	24/05	15/06	20/07	06/08	04/09	23/10	17/11	09/12	17/11	15/06	17/11
YR	1977	1967	1965	1978	1966	1975	1978	1974	1975	1971	1971	1974	1971	1975	1971
MIN	9931	9934	9913	9857	9854	9824	9860	9861	9903	9908	9801	9972	9801	9824	9801
2.5	10001	10031	10024	9968	9961	9944	9943	9933	9975	9977	9974	10005	10002	9951	9973
5	10031	10055	10037	10010	9994	9972	9969	9969	10005	10001	10017	10017	10029	9983	10002
20	10095	10119	10115	10091	10071	10059	10044	10061	10077	10078	10081	10074	10093	10065	10081
40	10124	10158	10168	10140	10132	10129	10124	10119	10129	10136	10127	10109	10137	10128	10133
50	10142	10174	10187	10164	10152	10151	10150	10160	10151	10157	10149	10129	10157	10153	10156
60	10157	10189	10203	10178	10182	10175	10175	10189	10175	10175	10174	10147	10175	10178	10176
80	10190	10216	10237	10220	10224	10226	10241	10254	10225	10222	10210	10187	10212	10231	10220
95	10242	10255	10272	10268	10278	10296	10299	10321	10287	10275	10252	10226	10256	10292	10276
97.5	10258	10273	10289	10281	10305	10318	10339	10344	10303	10290	10270	10236	10272	10319	10295
MAX	10282	10289	10359	10316	10349	10366	10389	10400	10362	10339	10301	10292	10359	10400	10400
DATE	17/01	15/02	29/03	15/04	19/05	19/06	28/07	07/08	10/09	05/10	11/11	13/12	29/03	07/08	07/08
YR	1971	1973	1967	1975	1967	1966	1967	1978	1965	1973	1969	1966	1967	1978	1978
MEAN	10139	10166	10176	10154	10146	10144	10143	10152	10149	10149	10144	10128	10151	10147	10149
S.D.	61	60	70	78	89	96	104	108	87	82	76	64	70	95	84

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PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION 886131 ROTORUA AIRPORT LAT 38 7S LONG 176 19E HT 287M

DATA PERIOD 4 1964 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	496	452	496	510	527	510	527	527	510	527	510	527	2991	3128	6119
DATE	17/01	03/02	03/03	19/04	24/05	15/06	20/07	06/08	04/09	10/10	17/11	27/12	17/11	15/06	17/11
YR	1980	1967	1965	1978	1966	1975	1978	1974	1975	1972	1971	1965	1971	1975	1971
MIN	9892	9914	9908	9869	9876	9825	9862	9862	9906	9899	9822	9967	9822	9825	9822
2.5	9996	10028	10018	9965	9973	9941	9947	9941	9973	9981	9969	10003	9998	9957	9973
5	10024	10054	10039	10010	9995	9977	9974	9965	9998	10002	10010	10014	10024	9984	10001
20	10093	10117	10114	10089	10076	10062	10038	10057	10074	10076	10078	10072	10090	10065	10080
40	10124	10155	10164	10142	10136	10135	10117	10116	10123	10136	10127	10111	10136	10128	10133
50	10143	10173	10184	10166	10160	10159	10152	10156	10148	10156	10147	10129	10156	10155	10156
60	10158	10188	10200	10187	10186	10183	10178	10186	10171	10178	10169	10149	10174	10180	10177
80	10190	10215	10237	10226	10234	10236	10243	10252	10217	10220	10208	10183	10212	10232	10221
95	10244	10253	10273	10274	10287	10303	10307	10316	10286	10271	10248	10225	10256	10294	10277
97.5	10258	10268	10292	10284	10314	10324	10342	10347	10304	10289	10272	10233	10275	10318	10299
MAX	10281	10297	10364	10317	10354	10368	10396	10404	10362	10338	10297	10284	10364	10404	10404
DATE	17/01	15/02	29/03	15/04	19/05	19/06	28/07	07/08	10/09	05/10	11/11	13/12	29/03	07/08	07/08
YR	1971	1973	1967	1975	1967	1966	1967	1978	1965	1973	1969	1966	1967	1978	1978
MEAN	10139	10165	10174	10157	10153	10151	10143	10150	10145	10150	10141	10126	10150	10148	10149
S.D.	63	60	71	81	90	98	106	107	86	80	76	63	71	95	84

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION 886611 WAIRAKEI POWER STN LAT 38 38S LONG 176 6E HT 342M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	279	270	279	1632	1656	3288
DATE	17/01	07/02	02/03	19/04	16/05	15/06	20/07	26/08	04/09	10/10	09/11	25/12	19/04	15/06	15/06
YR	1980	1976	1980	1978	1979	1975	1978	1978	1975	1972	1980	1975	1978	1975	1975
MIN	9887	10006	9952	9860	9950	9804	9858	9868	9903	9881	9930	9970	9860	9804	9804
2.5	9985	10050	10047	9974	9994	9952	9953	9930	9957	10002	9995	10002	10006	9968	9986
5	10032	10073	10075	10018	10018	9988	9981	9976	9992	10028	10026	10012	10032	9994	10008
20	10104	10136	10135	10102	10089	10060	10040	10067	10087	10103	10105	10065	10104	10074	10089
40	10134	10173	10191	10168	10156	10152	10114	10124	10138	10154	10150	10106	10151	10141	10146
50	10150	10190	10207	10195	10188	10181	10149	10149	10159	10170	10168	10127	10171	10167	10169
60	10173	10204	10222	10212	10211	10203	10190	10186	10180	10192	10186	10150	10192	10193	10192
80	10208	10235	10259	10251	10260	10257	10259	10246	10221	10238	10221	10183	10232	10248	10239
95	10266	10280	10306	10300	10319	10327	10314	10323	10302	10281	10261	10223	10281	10314	10297
97.5	10281	10301	10316	10312	10344	10342	10349	10355	10318	10316	10291	10245	10298	10336	10317
MAX	10291	10322	10336	10335	10367	10378	10413	10424	10381	10363	10303	10283	10336	10424	10424
DATE	27/01	15/02	30/03	15/04	09/05	21/06	03/07	07/08	13/09	05/10	20/11	15/12	30/03	07/08	07/08
YR	1978	1973	1974	1975	1980	1973	1973	1978	1975	1973	1973	1973	1974	1978	1978
MEAN	10151	10185	10197	10177	10177	10168	10150	10153	10151	10167	10161	10125	10166	10161	10163
S.D.	70	60	72	87	92	103	110	107	87	78	70	64	75	97	87

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION C74082 AUCKLAND AIRPORT LAT 37 1S LONG 174 48E HT 8M

DATA PERIOD 12 1965 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	465	424	465	450	465	450	465	465	450	465	473	496	2773	2760	5533
DATE	17/01	03/02	03/03	19/04	24/05	15/06	20/07	06/08	20/09	23/10	17/11	29/12	17/11	20/07	17/11
YR	1980	1967	1966	1978	1966	1975	1978	1974	1971	1971	1971	1966	1971	1978	1971
MIN	9917	9946	9975	9850	9869	9848	9841	9853	9903	9915	9803	9988	9803	9841	9803
2.5	10006	10055	10021	9982	9976	9958	9959	9955	9984	9993	9985	10013	10013	9970	9987
5	10044	10079	10046	10025	9997	9983	9987	9986	10000	10036	10031	10033	10039	9995	10014
20	10103	10128	10130	10096	10076	10061	10057	10066	10077	10100	10092	10084	10103	10074	10091
40	10135	10165	10171	10142	10142	10135	10126	10126	10130	10152	10140	10121	10144	10136	10141
50	10152	10183	10184	10166	10163	10159	10157	10158	10149	10173	10162	10138	10163	10160	10162
60	10166	10195	10203	10186	10192	10185	10182	10189	10173	10188	10179	10156	10181	10184	10183
80	10197	10219	10236	10226	10238	10242	10240	10254	10225	10232	10217	10189	10215	10238	10225
95	10245	10253	10269	10269	10294	10297	10308	10312	10278	10277	10257	10228	10257	10295	10275
97.5	10258	10266	10284	10275	10316	10320	10334	10341	10295	10301	10273	10242	10271	10315	10297
MAX	10274	10295	10344	10317	10345	10352	10385	10392	10352	10346	10293	10307	10344	10392	10392
DATE	17/01	28/02	29/03	15/04	19/05	19/06	28/07	07/08	13/09	05/10	17/11	13/12	29/03	07/08	07/08
YR	1978	1973	1967	1975	1967	1966	1967	1978	1975	1973	1969	1966	1967	1978	1978
MEAN	10148	10174	10179	10157	10157	10153	10150	10155	10148	10166	10154	10136	10157	10155	10156
S.D.	61	54	64	76	89	96	100	103	83	76	74	60	67	92	80

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION C75832 HAMILTON AIRPORT LAT 37 52S LONG 175 20E HT 50M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	279	270	279	1632	1656	3288
DATE	17/01	07/02	02/03	19/04	03/05	15/06	20/07	06/08	04/09	10/10	09/11	12/12	19/04	15/06	15/06
YR	1980	1976	1980	1978	1977	1975	1978	1974	1975	1972	1980	1979	1978	1975	1975
MIN	9898	10002	9924	9830	9955	9819	9828	9863	9892	9905	9917	9982	9830	9819	9819
2.5	9984	10051	10035	9979	9992	9949	9944	9922	9965	10005	10001	10003	10008	9962	9984
5	10027	10079	10068	10021	10013	9979	9980	9970	9993	10038	10022	10015	10033	9991	10008
20	10104	10130	10124	10103	10096	10067	10036	10060	10074	10103	10100	10067	10103	10071	10090
40	10133	10165	10177	10156	10151	10147	10106	10120	10137	10148	10149	10110	10147	10138	10143
50	10152	10184	10193	10181	10178	10173	10143	10145	10153	10168	10167	10128	10166	10160	10163
60	10166	10197	10211	10201	10201	10192	10178	10177	10176	10186	10185	10145	10185	10186	10186
80	10207	10224	10252	10241	10247	10242	10244	10235	10212	10235	10217	10182	10224	10236	10230
95	10256	10271	10294	10289	10302	10309	10293	10308	10291	10277	10261	10223	10271	10297	10283
97.5	10274	10279	10302	10298	10331	10319	10331	10330	10310	10303	10277	10248	10286	10317	10302
MAX	10286	10306	10317	10341	10354	10351	10391	10411	10375	10357	10295	10276	10341	10411	10411
DATE	18/01	15/02	30/03	15/04	09/05	04/06	03/07	07/08	13/09	05/10	08/11	15/12	15/04	07/08	07/08
YR	1978	1973	1974	1975	1980	1974	1973	1978	1975	1973	1978	1973	1975	1978	1978
MEAN	10150	10178	10188	10169	10171	10158	10139	10144	10148	10164	10159	10125	10161	10154	10158
S.D.	68	56	70	83	86	98	105	105	85	74	69	63	72	93	83

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION C94011 NEW PLYMOUTH AIRPORT LAT 39 1S LONG 174 11E HT 27M

DATA PERIOD 1 1962 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	589	537	589	570	589	570	589	589	570	589	570	620	3475	3496	6971
DATE	17/01	03/02	03/03	19/04	29/05	15/06	20/07	06/08	12/09	21/10	17/11	09/12	17/11	06/08	17/11
YR	1980	1967	1965	1978	1968	1975	1978	1974	1976	1971	1971	1974	1971	1974	1971
MIN	9852	9946	9927	9826	9887	9840	9853	9835	9876	9896	9817	9944	9817	9835	9817
2.5	9990	10031	10009	9968	9958	9940	9937	9931	9967	9983	9969	10002	9994	9952	9968
5	10025	10059	10044	10008	9990	9971	9960	9965	9996	10010	10006	10020	10025	9981	9997
20	10095	10119	10116	10089	10075	10055	10028	10056	10072	10078	10077	10079	10093	10062	10079
40	10132	10156	10164	10147	10137	10128	10115	10119	10121	10140	10128	10123	10140	10128	10135
50	10150	10176	10179	10168	10162	10154	10148	10153	10144	10161	10147	10138	10158	10153	10157
60	10164	10191	10198	10187	10185	10177	10179	10183	10167	10182	10167	10155	10177	10178	10177
80	10196	10216	10230	10229	10235	10230	10241	10245	10218	10226	10208	10195	10214	10233	10222
95	10246	10255	10265	10276	10280	10298	10303	10308	10282	10274	10252	10234	10256	10291	10274
97.5	10255	10267	10284	10288	10317	10322	10333	10333	10296	10290	10268	10251	10272	10313	10295
MAX	10276	10298	10360	10331	10355	10359	10393	10392	10357	10345	10291	10298	10360	10393	10393
DATE	17/01	15/02	29/03	24/04	09/05	19/06	28/07	07/08	10/09	05/10	12/11	14/12	29/03	28/07	28/07
YR	1971	1973	1967	1962	1980	1966	1967	1978	1965	1973	1969	1966	1967	1967	1967
MEAN	10144	10167	10172	10157	10152	10146	10138	10147	10142	10153	10140	10134	10152	10147	10149
S.D.	66	60	69	83	90	99	108	106	85	81	77	66	72	96	85

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION D05964 WAINGAWA,WASTERTON LAT 40 59S LONG 175 37E HT 114M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	254	277	267	273	266	271	274	265	274	264	276	1617	1623	3240
DATE	17/01	23/02	16/03	20/04	02/05	15/06	17/07	26/08	12/09	10/10	28/11	25/12	17/01	26/08	17/01
YR	1980	1980	1980	1978	1977	1975	1972	1978	1976	1972	1980	1975	1980	1978	1980
MIN	9785	9953	9910	9881	9867	9840	9856	9804	9848	9891	9890	9921	9785	9804	9785
2.5	9966	10008	10005	9964	9956	9958	9923	9896	9930	9972	9960	9955	9967	9944	9956
5	9998	10043	10039	9987	9978	9984	9947	9940	9968	10000	9999	9974	9999	9969	9979
20	10059	10118	10110	10084	10063	10059	10010	10042	10065	10061	10063	10034	10075	10048	10064
40	10110	10155	10160	10150	10129	10139	10089	10109	10115	10121	10123	10093	10129	10118	10124
50	10129	10174	10183	10172	10152	10161	10125	10140	10132	10146	10143	10114	10152	10145	10149
60	10152	10196	10209	10191	10181	10185	10164	10171	10154	10166	10166	10131	10174	10168	10171
80	10204	10232	10245	10243	10240	10233	10240	10224	10200	10222	10203	10174	10217	10226	10221
95	10256	10279	10302	10285	10289	10312	10313	10294	10280	10274	10245	10218	10275	10293	10282
97.5	10275	10289	10321	10319	10328	10327	10341	10319	10328	10287	10271	10244	10290	10319	10310
MAX	10305	10350	10332	10340	10363	10366	10408	10371	10369	10341	10317	10283	10350	10408	10408
DATE	30/01	13/02	23/03	13/04	09/05	04/06	03/07	07/08	12/09	05/10	05/11	15/12	13/02	03/07	03/07
YR	1978	1980	1974	1976	1980	1974	1973	1978	1975	1980	1979	1973	1980	1973	1973
MEAN	10128	10171	10177	10160	10149	10153	10126	10133	10129	10141	10135	10106	10146	10138	10142
S.D.	84	70	78	92	97	99	117	107	92	85	78	74	84	100	92

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION D06921 CASTLEPOINT LAT 40 54S LONG 176 13E HT 3M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	252	214	237	226	244	227	234	237	236	239	242	250	1421	1417	2838
DATE	17/01	23/02	17/03	20/04	02/05	15/06	17/07	13/08	13/09	10/10	27/11	22/12	17/01	13/09	17/01
YR	1980	1980	1980	1978	1977	1975	1972	1972	1976	1972	1977	1974	1980	1976	1980
MIN	9773	9957	9949	9854	9851	9840	9840	9840	9815	9870	9888	9888	9773	9815	9773
2.5	9965	9981	10014	9930	9903	9928	9904	9866	9888	9963	9928	9940	9953	9916	9930
5	9986	10026	10048	9961	9955	9963	9932	9922	9918	9992	9971	9951	9985	9946	9960
20	10059	10111	10105	10075	10036	10056	9992	10031	10044	10063	10052	10020	10066	10039	10054
40	10102	10151	10156	10141	10122	10114	10071	10104	10102	10115	10113	10083	10121	10108	10114
50	10126	10166	10182	10165	10143	10142	10113	10127	10122	10142	10130	10103	10145	10133	10139
60	10152	10185	10203	10183	10170	10169	10151	10160	10144	10165	10160	10120	10167	10158	10164
80	10198	10223	10242	10235	10233	10229	10227	10210	10189	10215	10201	10159	10210	10220	10214
95	10259	10277	10295	10280	10295	10303	10306	10288	10273	10266	10241	10207	10270	10288	10279
97.5	10275	10289	10309	10305	10308	10317	10327	10301	10326	10291	10268	10239	10286	10310	10301
MAX	10298	10333	10323	10326	10350	10348	10397	10365	10351	10327	10310	10289	10333	10397	10397
DATE	31/01	13/02	23/03	13/04	09/05	21/06	02/07	07/08	13/09	06/10	05/11	15/12	13/02	02/07	02/07
YR	1978	1980	1974	1976	1980	1973	1973	1976	1975	1980	1979	1973	1980	1973	1973
MEAN	10125	10163	10176	10149	10137	10140	10112	10122	10114	10137	10125	10094	10137	10127	10132
S.D.	84	72	75	95	105	101	120	107	99	85	85	78	86	104	96

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION D15631 CAPE PALLISER LAT 41 37S LONG 175 16E HT 10M

DATA PERIOD 4 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	247	223	245	266	276	258	266	262	269	276	270	275	1526	1607	3133
DATE	17/01	28/02	16/03	30/04	02/05	15/06	17/07	12/08	13/09	10/10	28/11	25/12	17/01	13/09	17/01
YR	1980	1979	1980	1976	1977	1975	1972	1972	1976	1972	1980	1975	1980	1976	1980
MIN	9727	9932	9886	9812	9841	9843	9857	9817	9812	9897	9909	9900	9727	9812	9727
2.5	9947	9975	10012	9928	9920	9934	9905	9883	9900	9943	9946	9939	9952	9913	9932
5	9973	10007	10045	9980	9954	9951	9923	9931	9931	9979	9970	9952	9980	9947	9963
20	10046	10101	10106	10069	10045	10055	9995	10024	10049	10055	10054	10031	10063	10037	10052
40	10101	10138	10156	10138	10113	10120	10078	10102	10096	10112	10109	10081	10121	10105	10113
50	10131	10158	10181	10161	10145	10150	10117	10131	10120	10139	10136	10105	10146	10135	10140
60	10153	10182	10207	10182	10171	10177	10160	10161	10146	10159	10161	10126	10166	10160	10163
80	10200	10226	10246	10241	10233	10225	10232	10216	10193	10211	10199	10167	10212	10218	10215
95	10252	10277	10302	10277	10292	10301	10308	10287	10270	10268	10240	10218	10271	10290	10282
97.5	10272	10297	10311	10308	10320	10324	10328	10306	10319	10291	10269	10239	10291	10314	10304
MAX	10311	10344	10329	10336	10353	10367	10399	10347	10346	10337	10308	10282	10344	10399	10399
DATE	30/01	13/02	23/03	13/04	09/05	04/06	03/07	07/08	21/09	05/10	05/11	15/12	13/02	03/07	03/07
YR	1978	1980	1974	1976	1980	1974	1973	1978	1978	1980	1979	1973	1980	1973	1973
MEAN	10121	10158	10175	10150	10136	10143	10115	10122	10117	10132	10126	10099	10137	10128	10132
S.D.	89	77	80	95	104	100	122	108	97	88	82	79	88	104	96

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION D78751 EAST CAPE LAT 37 42S LONG 178 33E HT 17M

DATA PERIOD 4 1961 TO 3 1979
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	558	508	558	539	558	540	558	558	540	558	540	558	3261	3312	6573
DATE	17/01	03/02	03/03	13/04	24/05	15/06	25/07	07/08	05/09	10/10	17/11	25/12	17/11	15/06	15/06
YR	1975	1967	1965	1968	1966	1975	1968	1964	1977	1972	1971	1975	1971	1975	1975
MIN	9921	9900	9904	9889	9889	9819	9895	9872	9900	9909	9836	9943	9836	9819	9819
2.5	9999	10030	10011	9947	9967	9938	9936	9940	9974	9982	9976	9997	9993	9952	9970
5	10022	10044	10038	9993	9994	9963	9966	9971	9998	10000	10008	10011	10021	9980	9995
20	10086	10115	10117	10077	10065	10046	10029	10056	10074	10080	10077	10069	10087	10060	10075
40	10124	10153	10166	10143	10125	10113	10108	10119	10122	10137	10126	10111	10137	10122	10130
50	10143	10172	10183	10161	10146	10137	10139	10152	10143	10156	10148	10135	10156	10146	10152
60	10159	10187	10200	10181	10168	10158	10164	10182	10161	10177	10169	10154	10175	10170	10173
80	10193	10218	10233	10226	10215	10217	10232	10245	10216	10226	10210	10198	10215	10225	10218
95	10245	10253	10273	10273	10264	10293	10304	10304	10283	10277	10256	10238	10259	10289	10274
97.5	10257	10268	10287	10292	10292	10315	10326	10337	10301	10292	10276	10259	10274	10312	10294
MAX	10291	10298	10369	10333	10344	10365	10391	10395	10360	10340	10301	10289	10369	10395	10395
DATE	17/01	28/02	29/03	24/04	19/05	19/06	28/07	07/08	10/09	08/10	11/11	12/12	29/03	07/08	07/08
YR	1971	1973	1967	1962	1967	1966	1967	1978	1965	1961	1969	1962	1967	1978	1978
MEAN	10139	10163	10173	10151	10140	10132	10134	10149	10143	10151	10141	10131	10150	10142	10146
S.D.	65	63	70	85	85	99	105	104	85	82	77	70	73	94	85

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION D87692 GISBORNE AIRPORT LAT 38 40S LONG 177 59E HT 4M

DATA PERIOD 12 1961 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	589	537	589	570	589	570	589	589	570	589	570	620	3475	3496	6971
DATE	17/01	03/02	03/03	10/04	04/05	15/06	16/07	13/08	13/09	21/10	17/11	27/12	17/11	15/06	15/06
YR	1980	1967	1965	1968	1971	1975	1964	1972	1976	1971	1971	1965	1971	1975	1975
MIN	9858	9918	9898	9892	9868	9818	9870	9861	9900	9884	9842	9936	9842	9818	9818
2.5	9982	10014	10009	9948	9966	9938	9939	9927	9964	9970	9965	9989	9983	9951	9963
5	10018	10043	10048	9996	9988	9964	9958	9960	9984	9995	9996	10005	10013	9973	9990
20	10082	10112	10111	10074	10064	10053	10033	10053	10068	10072	10067	10068	10083	10056	10072
40	10125	10151	10161	10145	10131	10122	10111	10118	10113	10130	10116	10111	10135	10121	10129
50	10142	10168	10179	10162	10154	10148	10144	10154	10140	10152	10140	10133	10155	10148	10152
60	10160	10188	10201	10182	10180	10175	10173	10184	10160	10172	10160	10154	10173	10174	10173
80	10196	10220	10235	10229	10228	10225	10239	10247	10209	10221	10205	10192	10214	10228	10220
95	10243	10262	10277	10283	10286	10300	10311	10309	10281	10273	10253	10239	10262	10294	10277
97.5	10261	10272	10294	10294	10311	10323	10339	10338	10310	10290	10270	10255	10277	10316	10300
MAX	10292	10309	10382	10338	10340	10374	10400	10392	10365	10337	10305	10283	10382	10400	10400
DATE	17/01	15/02	29/03	25/04	21/05	19/06	28/07	07/08	10/09	06/10	16/11	15/12	29/03	28/07	28/07
YR	1971	1973	1967	1962	1967	1966	1967	1978	1965	1980	1969	1973	1967	1967	1967
MEAN	10138	10164	10172	10153	10147	10141	10137	10147	10137	10145	10133	10129	10148	10143	10145
S.D.	68	66	73	88	91	101	110	107	87	83	79	70	76	97	87

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION D96481 NAPIER AIRPORT LAT 39 28S LONG 176 52E HT 2M

DATA PERIOD 4 1961 TO 12 1976
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	465	424	465	480	496	480	496	496	480	496	480	496	2810	2944	5754
DATE	17/01	13/02	03/03	15/04	04/05	15/06	18/07	13/08	13/09	21/10	26/11	27/12	26/11	15/06	15/06
YR	1975	1965	1965	1962	1971	1975	1964	1972	1976	1971	1971	1965	1971	1975	1975
MIN	9915	9926	9891	9823	9858	9798	9850	9846	9881	9868	9822	9927	9822	9798	9798
2.5	9970	9993	9999	9941	9950	9921	9929	9913	9953	9966	9948	9974	9970	9938	9949
5	10010	10030	10039	9997	9984	9960	9946	9946	9985	9982	9979	9997	10002	9968	9981
20	10077	10110	10107	10077	10061	10046	10031	10048	10065	10056	10055	10061	10077	10052	10065
40	10120	10151	10157	10142	10118	10116	10113	10120	10118	10120	10106	10110	10129	10118	10124
50	10138	10166	10176	10160	10144	10142	10144	10153	10139	10146	10129	10137	10152	10144	10149
60	10157	10186	10196	10183	10166	10168	10170	10186	10162	10173	10155	10155	10171	10170	10170
80	10189	10219	10231	10230	10219	10223	10242	10245	10212	10220	10200	10192	10213	10227	10219
95	10235	10261	10271	10285	10271	10302	10314	10313	10280	10274	10261	10243	10262	10292	10278
97.5	10258	10277	10300	10303	10288	10333	10345	10323	10306	10290	10271	10257	10277	10317	10302
MAX	10291	10323	10378	10343	10334	10372	10404	10386	10360	10376	10308	10296	10378	10404	10404
DATE	25/01	17/02	29/03	25/04	21/05	19/06	28/07	18/08	15/09	07/10	16/11	17/12	29/03	28/07	28/07
YR	1962	1971	1967	1963	1967	1966	1967	1966	1966	1961	1969	1961	1967	1967	1967
MEAN	10132	10161	10168	10153	10137	10136	10137	10146	10138	10140	10125	10127	10144	10139	10141
S.D.	69	71	75	90	90	105	113	109	89	90	85	74	80	100	90

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION D97381 PORTLAND IS LAT 39 18S LONG 177 52E HT 78M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	278	255	279	269	278	253	269	264	270	279	269	277	1627	1613	3240
DATE	17/01	05/02	16/03	19/04	02/05	15/06	20/07	25/08	13/09	10/10	09/11	25/12	17/01	15/06	15/06
YR	1980	1975	1980	1978	1977	1975	1978	1978	1976	1972	1980	1975	1980	1975	1975
MIN	9839	9982	9928	9899	9924	9807	9886	9844	9905	9858	9919	9940	9839	9807	9807
2.5	9961	10016	10027	9942	9969	9925	9914	9905	9934	9979	9967	9984	9985	9950	9961
5	10003	10048	10057	9990	9994	9969	9954	9961	9969	10006	10004	9989	10007	9970	9987
20	10084	10125	10116	10077	10061	10065	10017	10047	10065	10086	10084	10052	10088	10056	10073
40	10119	10160	10175	10157	10135	10119	10088	10110	10120	10138	10135	10097	10139	10121	10131
50	10140	10180	10197	10177	10167	10149	10125	10140	10146	10161	10157	10118	10161	10149	10155
60	10162	10196	10218	10197	10192	10178	10165	10168	10164	10175	10177	10136	10182	10173	10177
80	10202	10229	10249	10237	10240	10232	10237	10236	10205	10227	10209	10178	10223	10228	10225
95	10252	10276	10302	10297	10293	10309	10309	10300	10287	10274	10257	10223	10276	10296	10283
97.5	10274	10286	10308	10306	10319	10324	10339	10335	10322	10297	10275	10245	10296	10322	10305
MAX	10295	10323	10334	10330	10347	10359	10390	10400	10371	10348	10298	10301	10334	10400	10400
DATE	27/01	15/02	30/03	13/04	09/05	21/06	03/07	07/08	13/09	05/10	05/11	15/12	30/03	07/08	07/08
YR	1978	1973	1974	1976	1980	1973	1973	1978	1975	1973	1979	1973	1974	1978	1978
MEAN	10138	10174	10187	10162	10154	10144	10126	10134	10135	10153	10147	10114	10153	10141	10147
S.D.	76	65	76	91	94	103	114	107	89	82	75	70	80	99	90

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION E04991 PARAPARAUMU AIRPORT LAT 40 54S LONG 174 59E HT 7M

DATA PERIOD 12 1961 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	589	537	589	570	589	570	589	589	570	589	570	620	3475	3496	6971
DATE	17/01	13/02	03/03	19/04	02/05	26/06	16/07	13/08	13/09	21/10	17/11	27/12	17/01	26/06	17/01
YR	1980	1965	1965	1978	1977	1968	1964	1972	1976	1971	1971	1965	1980	1968	1980
MIN	9803	9927	9900	9863	9873	9906	9817	9843	9844	9873	9855	9906	9803	9806	9803
2.5	9980	10006	9996	9953	9946	9940	9925	9916	9953	9969	9954	9975	9973	9941	9956
5	10009	10038	10043	9995	9979	9967	9951	9956	9978	9994	9975	9998	10006	9969	9985
20	10079	10113	10108	10075	10061	10052	10024	10050	10062	10060	10059	10065	10082	10053	10069
40	10121	10154	10160	10141	10125	10124	10108	10123	10113	10124	10113	10114	10132	10121	10127
50	10146	10174	10176	10162	10152	10150	10150	10154	10137	10150	10135	10132	10154	10148	10152
60	10161	10188	10195	10183	10181	10174	10172	10184	10155	10170	10158	10152	10173	10172	10172
80	10194	10217	10231	10231	10231	10227	10243	10240	10208	10222	10203	10189	10212	10229	10219
95	10246	10258	10269	10277	10285	10302	10303	10309	10282	10270	10248	10234	10259	10292	10276
97.5	10256	10275	10289	10294	10315	10328	10339	10338	10313	10284	10269	10250	10274	10316	10297
MAX	10276	10317	10371	10334	10353	10358	10402	10382	10358	10331	10299	10299	10371	10402	10402
DATE	30/01	17/02	29/03	25/04	09/05	19/06	28/07	18/08	10/09	05/10	16/11	17/12	29/03	28/07	28/07
YR	1978	1971	1967	1963	1980	1966	1967	1966	1965	1973	1969	1961	1967	1967	1967
MEAN	10136	10164	10169	10152	10145	10143	10136	10145	10134	10142	10128	10127	10146	10141	10143
S.D.	71	66	72	88	94	102	113	107	89	85	82	71	77	99	89

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION E05231 OHAKEA LAT 40 12S LONG 175 23E HT 48M

DATA PERIOD 1 1960 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	651	594	651	630	651	630	651	651	630	651	630	651	3807	3864	7671
DATE	17/01	13/02	03/03	19/04	29/05	26/06	16/07	06/08	13/09	21/10	17/11	27/12	17/01	26/06	26/06
YR	1980	1965	1965	1978	1968	1968	1964	1974	1976	1971	1971	1965	1980	1968	1968
MIN	9829	9930	9908	9854	9882	9822	9844	9841	9856	9878	9840	9925	9829	9822	9822
2.5	9988	10011	10011	9959	9960	9949	9931	9928	9961	9979	9964	9986	9986	9950	9963
5	10016	10049	10052	10004	9989	9969	9953	9964	9990	10008	9990	10006	10015	9976	9992
20	10087	10114	10110	10088	10069	10053	10029	10055	10069	10071	10068	10070	10088	10058	10075
40	10125	10155	10161	10149	10129	10125	10107	10128	10118	10137	10122	10116	10136	10126	10131
50	10146	10173	10178	10168	10158	10151	10150	10160	10142	10159	10141	10133	10157	10153	10155
60	10162	10186	10196	10191	10181	10177	10177	10189	10160	10181	10163	10152	10175	10177	10176
80	10198	10217	10230	10238	10233	10229	10244	10250	10213	10228	10206	10191	10213	10234	10223
95	10245	10254	10269	10284	10287	10303	10316	10311	10285	10281	10257	10236	10261	10298	10280
97.5	10257	10275	10284	10300	10316	10330	10343	10333	10312	10293	10277	10250	10277	10322	10301
MAX	10280	10316	10368	10336	10357	10364	10402	10388	10361	10357	10306	10297	10368	10402	10402
DATE	30/01	17/02	29/03	25/04	09/05	19/06	28/07	07/08	10/09	07/10	21/11	17/12	29/03	28/07	28/07
YR	1978	1971	1967	1962	1980	1966	1967	1978	1965	1961	1961	1961	1967	1967	1967
MEAN	10139	10165	10170	10160	10150	10144	10139	10151	10140	10152	10135	10130	10150	10146	10148
S.D.	68	63	71	86	92	101	113	107	88	85	80	69	75	98	88

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION E14272 KELBURN, WELLINGTON LAT 41 17S LONG 174 46E HT 125M

DATA PERIOD 1 1962 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	589	537	589	570	589	570	589	589	570	589	570	620	3475	3496	6971
DATE	17/01	13/02	03/03	20/04	02/05	26/06	16/07	06/08	13/09	10/10	26/11	27/12	17/01	26/06	17/01
YR	1980	1965	1965	1978	1977	1968	1964	1974	1976	1971	1971	1965	1980	1968	1980
MIN	9776	9926	9898	9872	9850	9785	9785	9825	9808	9874	9869	9883	9776	9785	9776
2.5	9963	9996	9984	9936	9936	9930	9914	9907	9934	9963	9934	9952	9959	9929	9942
5	10000	10023	10036	9990	9966	9954	9939	9951	9964	9984	9963	9987	9993	9961	9973
20	10062	10104	10100	10068	10049	10045	10018	10040	10049	10048	10046	10056	10071	10044	10057
40	10116	10145	10152	10131	10118	10118	10103	10116	10106	10113	10102	10105	10125	10113	10119
50	10135	10163	10171	10155	10145	10145	10143	10151	10125	10139	10123	10130	10147	10141	10145
60	10155	10185	10189	10177	10176	10173	10169	10181	10150	10160	10151	10147	10166	10167	10166
80	10189	10217	10228	10229	10226	10225	10238	10239	10201	10215	10194	10186	10209	10224	10215
95	10239	10266	10269	10278	10282	10300	10305	10306	10280	10262	10245	10233	10258	10291	10274
97.5	10258	10276	10292	10299	10311	10322	10338	10335	10310	10278	10265	10249	10274	10315	10298
MAX	10291	10326	10373	10341	10352	10359	10405	10387	10352	10315	10296	10299	10373	10405	10405
DATE	30/01	17/02	29/03	25/04	09/05	30/06	28/07	18/08	10/09	05/10	05/11	17/12	29/03	28/07	28/07
YR	1978	1971	1967	1963	1980	1963	1967	1966	1965	1973	1979	1961	1967	1967	1967
MEAN	10127	10158	10164	10146	10139	10138	10131	10139	10125	10131	10117	10120	10138	10134	10136
S.D.	76	70	75	92	97	105	116	110	93	87	86	74	81	102	92

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION E14387 WELLINGTON AIRPORT LAT 41 20S LONG 174 49E HT 6M

DATA PERIOD 1 1960 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	620	565	620	630	651	630	651	651	630	651	630	651	3716	3864	7580
DATE	17/01	13/02	03/03	20/04	02/05	26/06	16/07	06/08	13/09	10/10	19/11	27/12	17/01	26/06	17/01
YR	1980	1965	1965	1978	1977	1968	1964	1974	1976	1971	1968	1965	1980	1968	1980
MIN	9775	9926	9903	9870	9848	9784	9788	9826	9809	9871	9870	9887	9775	9784	9775
2.5	9965	9995	9982	9939	9944	9927	9913	9911	9938	9965	9938	9955	9960	9931	9944
5	10002	10031	10032	9993	9964	9951	9937	9955	9968	9984	9964	9989	9994	9961	9975
20	10065	10100	10098	10073	10055	10042	10020	10041	10052	10052	10047	10053	10071	10044	10058
40	10115	10141	10149	10134	10116	10115	10097	10121	10106	10120	10102	10103	10124	10113	10119
50	10133	10161	10169	10158	10144	10143	10139	10153	10127	10142	10123	10127	10146	10140	10143
60	10153	10179	10189	10182	10172	10171	10167	10184	10150	10163	10151	10145	10164	10167	10165
80	10187	10215	10225	10233	10224	10219	10235	10241	10201	10215	10193	10182	10208	10222	10214
95	10236	10262	10266	10280	10282	10299	10309	10302	10282	10270	10247	10229	10257	10291	10275
97.5	10255	10276	10289	10300	10308	10321	10335	10327	10310	10286	10272	10244	10275	10316	10299
MAX	10289	10325	10369	10338	10351	10358	10402	10384	10350	10344	10366	10300	10369	10402	10402
DATE	30/01	17/02	29/03	25/04	09/05	30/06	28/07	18/08	10/09	07/10	21/11	17/12	29/03	28/07	28/07
YR	1978	1971	1967	1963	1980	1963	1967	1966	1965	1961	1961	1961	1967	1967	1967
MEAN	10126	10155	10161	10150	10137	10134	10128	10141	10126	10135	10118	10118	10138	10134	10136
S.D.	74	70	75	91	95	104	116	109	92	87	85	73	80	101	92

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION F93271 CAPE EGMONT LAT 39 17S LONG 173 45E HT 8M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	278	255	262	279	270	278	270	279	1632	1622	3254
DATE	17/01	28/02	12/03	19/04	02/05	15/06	20/07	06/08	12/09	09/10	09/11	19/12	19/04	06/08	19/04
YR	1980	1975	1975	1978	1977	1975	1978	1974	1976	1974	1980	1976	1978	1974	1978
MIN	9870	10000	9971	9824	9912	9845	9852	9828	9868	9910	9939	9928	9824	9828	9824
2.5	9979	10035	10037	9955	9968	9944	9933	9897	9947	9994	9994	9980	9997	9945	9965
5	10018	10068	10060	10009	9994	9974	9949	9958	9983	10018	10020	10013	10024	9975	9996
20	10095	10132	10124	10094	10088	10066	10019	10046	10078	10087	10097	10063	10099	10062	10082
40	10130	10168	10172	10161	10142	10135	10085	10105	10126	10147	10143	10111	10143	10128	10136
50	10149	10184	10189	10177	10168	10163	10125	10139	10148	10165	10157	10127	10162	10153	10158
60	10166	10198	10208	10200	10197	10180	10159	10171	10167	10182	10178	10140	10181	10177	10179
80	10200	10223	10242	10235	10241	10236	10236	10227	10209	10230	10214	10180	10220	10230	10225
95	10256	10270	10288	10281	10292	10297	10285	10298	10285	10273	10254	10215	10267	10289	10278
97.5	10272	10282	10299	10289	10319	10310	10324	10311	10305	10294	10269	10240	10280	10309	10295
MAX	10281	10308	10310	10341	10359	10350	10397	10391	10362	10352	10288	10278	10341	10397	10397
DATE	17/01	15/02	23/03	15/04	09/05	04/06	03/07	07/08	13/09	05/10	08/11	15/12	15/04	03/07	03/07
YR	1978	1973	1974	1975	1980	1974	1973	1978	1975	1973	1978	1973	1975	1973	1973
MEAN	10144	10177	10183	10164	10162	10150	10124	10133	10141	10158	10153	10121	10157	10145	10151
S.D.	71	59	68	85	89	98	109	107	87	79	69	65	73	96	85

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION F03501 FAREWELL SPIT LAT 40 33S LONG 173 1E HT 3M

DATA PERIOD 4 1961 TO 12 1977
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	496	452	496	510	527	510	527	527	510	527	510	527	2991	3128	6119
DATE	08/01	13/02	10/03	15/04	02/05	26/06	16/07	06/08	13/09	21/10	17/11	09/12	17/11	26/06	26/06
YR	1964	1965	1962	1962	1977	1968	1964	1974	1976	1971	1971	1974	1971	1968	1968
MIN	9913	9943	9922	9861	9866	9790	9832	9814	9808	9881	9852	9903	9852	9790	9790
2.5	9980	10005	9996	9963	9945	9927	9927	9920	9951	9977	9948	9973	9975	9934	9957
5	10003	10041	10037	10005	9970	9968	9945	9961	9982	9995	9978	10002	10004	9969	9983
20	10077	10111	10113	10073	10057	10048	10030	10054	10059	10057	10058	10059	10078	10052	10065
40	10117	10153	10156	10135	10115	10114	10107	10126	10114	10119	10111	10109	10129	10116	10123
50	10136	10169	10175	10157	10144	10142	10145	10152	10135	10146	10131	10128	10150	10144	10147
60	10151	10184	10189	10179	10166	10163	10176	10183	10156	10166	10155	10151	10168	10167	10167
80	10184	10216	10225	10225	10215	10217	10239	10241	10209	10213	10197	10187	10207	10222	10214
95	10229	10257	10262	10277	10267	10298	10304	10300	10274	10270	10247	10233	10254	10286	10272
97.5	10246	10276	10283	10299	10286	10329	10334	10327	10306	10284	10273	10248	10271	10310	10294
MAX	10271	10316	10367	10339	10329	10358	10398	10381	10349	10348	10297	10297	10367	10398	10398
DATE	25/01	17/02	29/03	25/04	20/05	10/06	28/07	18/08	10/09	07/10	16/11	17/12	29/03	28/07	28/07
YR	1962	1971	1967	1963	1967	1970	1967	1966	1965	1961	1969	1961	1967	1967	1967
MEAN	10128	10161	10166	10150	10134	10135	10135	10144	10132	10138	10125	10124	10142	10137	10139
S.D.	67	66	70	85	91	101	112	106	89	85	82	71	76	98	88

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION F11761 WESTPORT LAT 41 45S LONG 171 36E HT 3M

DATA PERIOD 4 1961 TO 3 1979
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	558	508	558	540	558	540	558	558	540	558	540	558	3267	3312	6574
DATE	08/01	13/02	10/03	19/04	02/05	26/06	15/07	12/08	12/09	21/10	17/11	09/12	17/11	26/06	26/06
YR	1964	1965	1962	1978	1977	1968	1964	1972	1976	1971	1971	1974	1971	1968	1968
MIN	9915	9951	9927	9870	9844	9790	9814	9798	9795	9882	9852	9911	9852	9790	9790
2.5	9969	10009	9998	9955	9944	9915	9910	9913	9953	9976	9935	9963	9967	9933	9950
5	10004	10045	10043	9995	9971	9967	9941	9950	9979	9989	9970	9990	10004	9963	9979
20	10078	10117	10112	10078	10056	10044	10022	10051	10062	10054	10061	10061	10082	10048	10066
40	10125	10156	10161	10137	10120	10112	10100	10120	10116	10128	10115	10108	10135	10117	10126
50	10147	10172	10176	10161	10144	10139	10136	10155	10137	10152	10139	10132	10156	10144	10151
60	10162	10189	10194	10182	10175	10166	10174	10184	10157	10174	10161	10154	10174	10171	10173
80	10193	10216	10231	10230	10224	10222	10240	10242	10213	10225	10204	10192	10213	10226	10219
95	10243	10255	10266	10277	10275	10300	10303	10301	10281	10276	10253	10235	10259	10289	10275
97.5	10256	10278	10286	10294	10294	10326	10333	10333	10307	10290	10277	10247	10275	10313	10295
MAX	10280	10312	10362	10339	10334	10358	10397	10382	10363	10339	10300	10291	10362	10397	10397
DATE	30/01	18/02	29/03	25/04	19/05	11/06	28/07	18/08	10/09	08/10	16/11	17/12	29/03	28/07	28/07
YR	1978	1971	1967	1963	1967	1970	1967	1966	1965	1961	1969	1961	1967	1967	1967
MEAN	10137	10165	10169	10152	10138	10134	10130	10142	10134	10143	10130	10126	10146	10137	10142
S.D.	70	64	71	87	93	103	115	109	91	89	86	74	78	101	90

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION F20793 HOKITIKA AIRPORT LAT 42 43S LONG 170 59E HT 39M

DATA PERIOD 1 1962 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	589	537	589	570	589	570	589	589	570	589	570	620	3475	3496	6971
DATE	17/01	03/02	03/03	30/04	02/05	26/06	18/07	12/08	12/09	10/10	17/11	25/12	17/01	12/09	17/01
YR	1980	1968	1966	1976	1977	1968	1964	1972	1976	1971	1971	1975	1980	1976	1980
MIN	9747	9923	9922	9866	9830	9790	9813	9788	9778	9882	9856	9911	9747	9778	9747
2.5	9968	10004	9989	9955	9933	9918	9910	9918	9934	9965	9937	9959	9963	9928	9946
5	9998	10033	10036	9981	9974	9963	9940	9952	9967	9983	9967	9985	9994	9964	9976
20	10075	10114	10104	10076	10057	10055	10026	10041	10050	10049	10051	10065	10077	10045	10063
40	10121	10150	10156	10132	10120	10120	10105	10110	10109	10119	10107	10110	10130	10115	10124
50	10144	10170	10173	10161	10148	10149	10144	10150	10129	10146	10131	10130	10152	10144	10148
60	10161	10189	10190	10180	10181	10179	10176	10180	10151	10170	10153	10152	10171	10172	10172
80	10195	10218	10231	10231	10231	10233	10239	10236	10207	10221	10199	10189	10212	10227	10219
95	10248	10258	10267	10277	10286	10303	10305	10303	10279	10272	10249	10237	10258	10291	10275
97.5	10256	10276	10285	10298	10314	10326	10330	10331	10302	10289	10262	10253	10274	10314	10297
MAX	10281	10310	10357	10343	10368	10356	10394	10378	10372	10330	10303	10298	10357	10394	10394
DATE	30/01	17/02	29/03	25/04	09/05	11/06	28/07	24/08	10/09	05/10	16/11	17/12	29/03	28/07	28/07
YR	1978	1971	1967	1963	1980	1970	1967	1969	1965	1973	1969	1961	1967	1967	1967
MEAN	10134	10163	10166	10150	10142	10142	10132	10138	10127	10137	10122	10124	10143	10136	10139
S.D.	75	67	73	89	99	104	115	110	93	90	86	75	80	102	92

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION F39801 HAAST LAT 43 52S LONG 169 0E HT 4M

DATA PERIOD 4 1961 TO 3 1976
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	465	424	465	450	465	450	465	465	450	465	450	465	2719	2760	5479
DATE	08/01	03/02	11/03	15/04	29/05	26/06	18/07	06/08	24/09	10/10	08/11	25/12	08/11	26/06	26/06
YR	1964	1968	1964	1962	1968	1968	1964	1964	1970	1971	1963	1972	1963	1968	1968
MIN	9890	9894	9910	9886	9838	9781	9781	9790	9851	9835	9814	9888	9814	9781	9781
2.5	9953	9996	9974	9944	9928	9862	9891	9898	9935	9944	9914	9953	9951	9914	9931
5	9976	10022	10021	9982	9961	9947	9924	9933	9957	9971	9942	9997	9986	9950	9963
20	10067	10102	10089	10071	10045	10042	10022	10038	10046	10039	10032	10059	10068	10040	10054
40	10116	10148	10148	10131	10102	10105	10105	10120	10108	10112	10094	10114	10125	10108	10118
50	10135	10166	10163	10157	10135	10141	10138	10144	10130	10144	10120	10133	10148	10138	10143
60	10153	10186	10187	10176	10163	10168	10173	10177	10151	10166	10146	10152	10167	10165	10166
80	10188	10217	10228	10227	10220	10225	10240	10240	10207	10224	10196	10193	10209	10224	10216
95	10239	10266	10264	10278	10276	10308	10309	10303	10276	10272	10256	10236	10259	10292	10275
97.5	10255	10282	10282	10300	10298	10331	10326	10332	10309	10298	10280	10253	10275	10315	10300
MAX	10275	10311	10355	10344	10332	10361	10400	10383	10369	10352	10311	10298	10355	10400	10400
DATE	25/01	17/02	29/03	25/04	11/05	10/06	03/07	24/08	10/09	07/10	20/11	17/12	29/03	03/07	03/07
YR	1962	1971	1967	1963	1968	1970	1973	1969	1965	1961	1961	1961	1967	1973	1973
MEAN	10127	10158	10158	10147	10128	10131	10130	10135	10124	10132	10113	10127	10138	10130	10134
S.D.	74	71	77	91	97	111	119	113	94	97	95	76	83	105	95

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION F47691 MILFORD SOUND LAT 44 40S LONG 167 55E HT 3M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	279	270	279	1632	1656	3288
DATE	17/01	16/02	11/03	30/04	01/05	05/06	24/07	12/08	12/09	29/10	05/11	24/12	17/01	12/09	12/09
YR	1980	1979	1972	1976	1977	1980	1978	1972	1976	1980	1976	1972	1980	1976	1976
MIN	9798	9887	9889	9875	9823	9834	9787	9755	9718	9818	9863	9851	9798	9718	9718
2.5	9950	9986	10004	9938	9922	9958	9880	9892	9883	9943	9938	9921	9950	9920	9931
5	9972	10013	10033	9971	9959	9987	9924	9935	9939	9979	9966	9952	9974	9949	9963
20	10058	10113	10099	10075	10053	10074	10006	10028	10041	10041	10044	10023	10065	10038	10051
40	10109	10154	10154	10137	10123	10128	10089	10109	10103	10114	10107	10077	10124	10111	10118
50	10132	10177	10173	10160	10160	10159	10121	10134	10130	10138	10131	10104	10144	10139	10142
60	10155	10194	10195	10180	10180	10182	10161	10159	10153	10161	10150	10124	10168	10167	10167
80	10199	10232	10242	10239	10240	10236	10237	10215	10199	10221	10199	10165	10215	10225	10219
95	10248	10276	10289	10288	10299	10312	10302	10294	10277	10265	10242	10219	10271	10296	10283
97.5	10262	10295	10298	10315	10339	10331	10322	10313	10313	10293	10267	10237	10287	10316	10302
MAX	10296	10324	10334	10347	10386	10374	10410	10359	10384	10320	10293	10285	10347	10410	10410
DATE	30/01	15/02	23/03	15/04	09/05	04/06	03/07	07/08	13/09	29/10	05/11	15/12	15/04	03/07	03/07
YR	1978	1973	1974	1975	1980	1974	1973	1978	1975	1972	1979	1973	1975	1973	1973
MEAN	10125	10166	10168	10151	10145	10154	10119	10123	10121	10132	10122	10093	10137	10132	10135
S.D.	85	78	80	95	107	98	123	103	103	92	84	82	88	106	98

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION F66161 PUYSEGUR POINT LAT 46 9S LONG 166 37E HT 43M

DATA PERIOD 4 1961 TO 3 1979
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	558	508	558	540	558	540	558	558	540	558	540	558	3262	3312	6574
DATE	27/01	14/02	11/03	02/04	29/05	26/06	18/07	06/08	12/09	04/10	23/11	24/12	27/01	18/07	18/07
YR	1976	1979	1972	1975	1963	1968	1964	1964	1976	1964	1967	1972	1976	1964	1964
MIN	9822	9886	9899	9871	9818	9774	9712	9743	9729	9777	9834	9839	9822	9712	9712
2.5	9919	9971	9972	9928	9916	9893	9863	9874	9890	9908	9901	9934	9935	9896	9911
5	9969	10015	10010	9966	9951	9937	9904	9926	9936	9933	9928	9961	9969	9935	9948
20	10048	10087	10083	10047	10037	10032	10016	10035	10020	10019	10012	10035	10050	10027	10038
40	10098	10132	10130	10110	10100	10104	10082	10109	10096	10083	10076	10086	10107	10097	10101
50	10117	10153	10154	10139	10127	10133	10119	10138	10118	10115	10099	10112	10130	10125	10128
60	10137	10171	10174	10160	10150	10156	10156	10162	10140	10142	10127	10132	10151	10151	10151
80	10186	10214	10222	10226	10207	10220	10224	10219	10192	10199	10182	10178	10200	10210	10205
95	10234	10258	10269	10282	10267	10302	10289	10289	10270	10254	10250	10225	10255	10279	10269
97.5	10249	10279	10280	10303	10285	10328	10313	10313	10296	10270	10271	10241	10273	10304	10289
MAX	10300	10331	10332	10342	10315	10378	10384	10390	10336	10362	10335	10283	10342	10390	10390
DATE	12/01	18/02	28/03	13/04	23/05	11/06	28/07	24/08	29/09	07/10	20/11	16/12	13/04	24/08	24/08
YR	1963	1971	1967	1976	1971	1970	1967	1969	1966	1961	1961	1961	1976	1969	1969
MEAN	10112	10147	10148	10133	10120	10126	10116	10125	10108	10107	10097	10104	10123	10117	10120
S.D.	81	75	80	96	95	111	117	112	103	100	96	82	88	107	98

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION G04601 STEPHENS IS LAT 40 40S LONG 174 0E HT 187M

DATA PERIOD 1 1973 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	246	224	246	238	248	229	237	233	238	248	240	247	1441	1433	2874
DATE	17/01	28/02	09/03	19/04	02/05	15/06	20/07	06/08	12/09	09/10	28/11	24/12	17/01	06/08	17/01
YR	1980	1979	1976	1978	1977	1975	1978	1974	1976	1974	1980	1975	1980	1974	1980
MIN	9777	9959	9888	9865	9860	9833	9873	9818	9829	9923	9894	9932	9777	9818	9777
2.5	9944	10002	10018	9933	9944	9944	9911	9927	9913	9982	9955	9962	9968	9927	9945
5	9979	10049	10046	9989	9978	9969	9923	9946	9944	10000	9990	9980	9995	9959	9977
20	10065	10114	10110	10085	10061	10056	10007	10037	10051	10064	10066	10052	10079	10045	10063
40	10116	10149	10163	10160	10124	10127	10088	10091	10101	10126	10117	10102	10133	10112	10123
50	10144	10169	10189	10179	10152	10150	10115	10123	10127	10147	10142	10118	10153	10138	10147
60	10165	10186	10209	10196	10184	10182	10164	10157	10150	10162	10162	10136	10176	10163	10170
80	10198	10221	10241	10240	10232	10228	10235	10214	10198	10223	10194	10177	10214	10221	10217
95	10254	10266	10293	10282	10289	10299	10300	10290	10275	10268	10240	10217	10267	10289	10279
97.5	10262	10290	10303	10303	10318	10315	10337	10315	10307	10283	10261	10236	10283	10315	10298
MAX	10282	10312	10317	10335	10359	10353	10398	10379	10354	10333	10298	10280	10335	10398	10398
DATE	30/01	13/02	23/03	15/04	09/05	04/06	03/07	07/08	13/09	04/10	05/11	15/12	15/04	03/07	03/07
YR	1978	1980	1974	1975	1980	1974	1973	1978	1975	1976	1979	1973	1975	1973	1973
MEAN	10130	10164	10176	10162	10146	10145	10121	10124	10121	10141	10130	10112	10145	10133	10139
S.D.	85	67	77	90	96	100	118	104	94	83	77	70	81	100	91

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION G13222 NELSON AIRPORT LAT 41 17S LONG 173 14E HT 2M

DATA PERIOD 12 1961 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	589	537	589	570	589	570	589	589	570	589	570	620	3475	3496	6971
DATE	17/01	03/02	03/03	15/04	02/05	26/06	16/07	06/08	13/09	21/10	17/11	27/12	17/01	26/06	17/01
YR	1980	1968	1965	1962	1977	1968	1964	1974	1976	1971	1971	1965	1980	1968	1980
MIN	9775	9925	9915	9868	9855	9789	9813	9824	9805	9887	9855	9915	9775	9789	9775
2.5	9904	10000	9988	9948	9945	9939	9919	9948	9966	9943	9962	9963	9932	9949	
5	9998	10030	10036	9987	9969	9964	9943	9953	9968	9984	9971	9989	9996	9965	9976
20	10068	10104	10101	10073	10058	10052	10022	10046	10057	10051	10049	10055	10074	10047	10061
40	10117	10146	10153	10135	10121	10124	10108	10119	10109	10116	10103	10104	10125	10116	10121
50	10136	10165	10172	10156	10150	10148	10148	10152	10131	10143	10124	10127	10147	10145	10146
60	10153	10181	10190	10180	10178	10175	10173	10183	10153	10161	10151	10147	10167	10170	10168
80	10188	10216	10228	10228	10229	10228	10242	10242	10205	10217	10194	10184	10208	10227	10216
95	10239	10259	10268	10279	10285	10306	10308	10308	10281	10264	10245	10229	10257	10293	10275
97.5	10255	10277	10290	10296	10314	10327	10340	10338	10310	10282	10265	10248	10271	10317	10298
MAX	10284	10324	10376	10344	10357	10365	10405	10388	10355	10321	10299	10298	10376	10405	10405
DATE	30/01	17/02	29/03	25/04	09/05	10/06	28/07	18/08	10/09	05/10	16/11	17/12	29/03	28/07	28/07
YR	1978	1971	1967	1963	1980	1970	1967	1966	1965	1973	1969	1961	1967	1967	1967
MEAN	10128	10158	10164	10149	10143	10142	10135	10142	10128	10134	10119	10120	10139	10137	10138
S.D.	74	68	74	90	96	104	115	110	92	86	84	72	79	101	91

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION G13581 BLENHEIM AIRPORT LAT 41 31S LONG 173 52E HT 27M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	279	270	279	1632	1656	3288
DATE	17/01	28/02	16/03	30/04	02/05	15/06	17/07	12/08	13/09	10/10	28/11	12/12	17/01	12/08	17/01
YR	1980	1979	1980	1976	1977	1975	1972	1972	1976	1972	1980	1979	1980	1972	1980
MIN	9752	9953	9908	9852	9851	9864	9865	9805	9816	9900	9889	9908	9752	9805	9752
2.5	9951	9995	10001	9955	9935	9949	9915	9895	9914	9966	9952	9938	9962	9928	9944
5	9985	10024	10036	9985	9965	9985	9930	9930	9957	9982	9982	9961	9993	9962	9974
20	10055	10118	10108	10086	10053	10067	10012	10037	10061	10062	10063	10033	10072	10051	10061
40	10111	10153	10164	10148	10129	10136	10093	10114	10113	10122	10121	10092	10129	10118	10124
50	10134	10168	10187	10168	10158	10163	10129	10140	10132	10143	10146	10109	10151	10144	10148
60	10151	10194	10209	10193	10187	10192	10168	10172	10156	10167	10164	10129	10170	10172	10171
80	10199	10232	10247	10243	10243	10239	10233	10227	10201	10218	10201	10170	10216	10228	10221
95	10249	10287	10302	10286	10301	10311	10321	10296	10287	10273	10245	10213	10275	10303	10287
97.5	10271	10305	10315	10315	10327	10330	10332	10318	10329	10294	10270	10247	10295	10322	10312
MAX	10310	10353	10332	10341	10373	10382	10416	10361	10361	10341	10316	10292	10353	10416	10416
DATE	30/01	13/02	23/03	15/04	09/05	04/06	02/07	08/08	12/09	05/10	05/11	24/12	13/02	02/07	02/07
YR	1978	1980	1974	1975	1980	1974	1973	1978	1975	1980	1979	1974	1980	1973	1973
MEAN	10126	10169	10179	10158	10148	10156	10127	10134	10128	10139	10132	10103	10144	10139	10141
S.D.	84	74	79	92	102	99	119	109	96	87	80	77	85	103	95

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION G14721 CAPE CAMPBELL LAT 41 44S LONG 174 17E HT 3M

DATA PERIOD 4 1961 TO 3 1979
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	558	508	558	540	558	540	558	558	540	558	526	558	3248	3312	6560
DATE	27/01	03/02	03/03	30/04	01/05	26/06	18/07	06/08	12/09	10/10	26/11	27/12	30/04	26/06	26/06
YR	1976	1968	1965	1976	1977	1968	1964	1964	1976	1971	1971	1965	1976	1968	1968
MIN	9844	9886	9912	9837	9817	9778	9791	9798	9790	9816	9850	9869	9837	9778	9778
2.5	9958	9985	9973	9939	9921	9903	9905	9897	9925	9940	9923	9927	9945	9918	9930
5	9984	10008	10025	9972	9957	9949	9927	9948	9954	9965	9944	9961	9975	9950	9962
20	10050	10091	10094	10062	10051	10036	10014	10040	10049	10033	10032	10041	10061	10036	10049
40	10101	10135	10143	10122	10104	10102	10093	10121	10104	10099	10091	10090	10116	10105	10111
50	10125	10153	10162	10146	10134	10131	10134	10150	10132	10127	10117	10118	10138	10134	10136
60	10146	10174	10184	10170	10159	10158	10170	10179	10147	10150	10145	10139	10158	10159	10159
80	10187	10215	10224	10225	10215	10214	10233	10232	10202	10209	10194	10181	10205	10216	10211
95	10237	10263	10275	10280	10270	10301	10305	10302	10283	10264	10247	10227	10255	10288	10274
97.5	10256	10281	10291	10305	10289	10326	10333	10329	10313	10283	10266	10244	10278	10309	10298
MAX	10303	10334	10367	10346	10323	10361	10398	10395	10352	10387	10313	10300	10367	10398	10398
DATE	30/01	17/02	28/03	25/04	11/05	30/06	28/07	18/08	03/09	07/10	20/11	17/12	28/03	28/07	28/07
YR	1978	1971	1967	1963	1968	1963	1967	1966	1970	1961	1961	1961	1967	1967	1967
MEAN	10118	10150	10157	10139	10127	10126	10125	10139	10124	10122	10110	10110	10131	10127	10129
S.D.	77	75	77	94	95	106	119	111	96	92	92	80	85	104	95

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION G23471 KAIKOURA LAT 42 25S LONG 173 42E HT 108M

DATA PERIOD 1 1964 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	527	481	527	510	527	510	527	527	510	527	510	527	3082	3128	6210
DATE	17/01	03/02	16/03	30/04	02/05	26/06	18/07	12/08	12/09	10/10	19/11	27/12	17/01	12/08	17/01
YR	1980	1968	1980	1976	1977	1968	1964	1972	1976	1971	1968	1965	1980	1972	1980
MIN	9739	9906	9869	9829	9812	9775	9770	9764	9769	9816	9843	9836	9739	9764	9739
2.5	9943	9977	9958	9928	9908	9920	9888	9880	9894	9918	9915	9925	9932	9904	9917
5	9964	10002	10009	9954	9947	9956	9920	9930	9931	9951	9933	9953	9961	9938	9950
20	10039	10090	10084	10055	10035	10046	10007	10022	10025	10023	10020	10026	10047	10027	10038
40	10092	10134	10140	10121	10104	10117	10100	10115	10086	10088	10077	10082	10108	10101	10104
50	10113	10152	10160	10140	10139	10147	10135	10142	10115	10116	10105	10111	10132	10131	10132
60	10137	10171	10181	10169	10163	10173	10169	10172	10141	10142	10132	10129	10152	10159	10156
80	10178	10221	10225	10227	10223	10221	10228	10226	10193	10198	10187	10168	10202	10216	10209
95	10231	10275	10278	10271	10282	10297	10310	10299	10285	10250	10243	10214	10255	10292	10274
97.5	10253	10292	10295	10286	10308	10320	10330	10321	10320	10279	10262	10230	10278	10312	10299
MAX	10306	10349	10363	10332	10349	10366	10404	10390	10358	10326	10307	10273	10363	10404	10404
DATE	30/01	13/02	28/03	13/04	09/05	04/06	28/07	24/08	03/09	05/10	01/11	15/12	28/03	28/07	28/07
YR	1978	1980	1967	1976	1980	1974	1967	1969	1970	1980	1969	1973	1967	1967	1967
MEAN	10107	10149	10154	10134	10128	10136	10123	10130	10110	10111	10101	10098	10123	10123	10123
S.D.	84	80	83	96	103	105	120	114	103	94	93	80	89	107	99

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION H31352 LAKE COLERIDGE LAT 43 22S LONG 171 32E HT 364M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	278	255	278	270	278	270	279	279	270	279	270	277	1628	1655	3283
DATE	17/01	05/02	10/03	30/04	02/05	05/06	24/07	12/08	12/09	29/10	21/11	24/12	17/01	12/08	17/01
YR	1980	1979	1979	1976	1977	1980	1978	1972	1976	1980	1973	1972	1980	1972	1980
MIN	9725	9886	9888	9833	9826	9888	9843	9754	9758	9870	9873	9872	9725	9754	9725
2.5	9936	9983	9948	9939	9912	9968	9903	9900	9910	9935	9933	9927	9939	9917	9931
5	9981	10009	10000	9953	9949	9993	9930	9944	9933	9978	9964	9944	9967	9949	9961
20	10045	10099	10092	10074	10050	10078	10017	10040	10044	10044	10050	10015	10056	10042	10050
40	10096	10154	10160	10148	10130	10137	10102	10117	10105	10097	10103	10068	10120	10113	10117
50	10124	10173	10181	10166	10160	10170	10131	10147	10135	10127	10126	10092	10145	10144	10145
60	10146	10189	10204	10186	10191	10203	10182	10178	10153	10162	10149	10126	10167	10175	10170
80	10196	10237	10249	10253	10252	10253	10255	10237	10215	10208	10191	10163	10216	10238	10227
95	10237	10283	10309	10297	10320	10325	10337	10303	10280	10265	10233	10224	10275	10311	10290
97.5	10273	10299	10320	10318	10342	10353	10347	10324	10324	10290	10275	10241	10296	10337	10320
MAX	10305	10361	10360	10358	10386	10407	10423	10357	10352	10346	10307	10281	10361	10423	10423
DATE	10/01	13/02	09/03	13/04	09/05	04/06	03/07	07/08	12/09	05/10	21/11	23/12	13/02	03/07	03/07
YR	1974	1980	1972	1976	1980	1974	1973	1978	1975	1980	1974	1974	1980	1973	1973
MEAN	10117	10164	10171	10157	10149	10167	10135	10138	10123	10126	10117	10090	10135	10140	10138
S.D.	88	82	90	99	112	101	126	110	104	90	84	84	93	109	101

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION H32451 CHRISTCHURCH AIRPORT LAT 43 29S LONG 172 32E HT 30M

DATA PERIOD 1 1960 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	651	594	651	630	651	630	651	651	630	651	630	651	3807	3864	7671
DATE	17/01	12/02	16/03	30/04	02/05	26/06	18/07	06/08	12/09	10/10	19/11	27/12	17/01	12/09	17/01
YR	1980	1965	1980	1976	1977	1968	1964	1964	1976	1971	1968	1965	1980	1976	1980
MIN	9740	9914	9856	9834	9813	9774	9762	9777	9756	9821	9843	9834	9740	9756	9740
2.5	9937	9974	9964	9929	9914	9898	9890	9902	9898	9918	9903	9927	9933	9904	9918
5	9962	9991	10001	9953	9945	9938	9923	9932	9939	9955	9932	9949	9962	9939	9949
20	10036	10078	10076	10057	10042	10041	10011	10031	10026	10028	10020	10030	10048	10031	10039
40	10095	10124	10134	10124	10107	10113	10094	10120	10091	10095	10077	10087	10108	10102	10105
50	10122	10146	10157	10146	10139	10144	10131	10145	10116	10119	10101	10118	10131	10132	10132
60	10141	10168	10179	10172	10163	10171	10167	10176	10141	10148	10127	10134	10154	10161	10157
80	10184	10213	10222	10235	10224	10225	10235	10234	10202	10205	10185	10175	10203	10221	10212
95	10233	10270	10272	10282	10289	10302	10317	10304	10284	10265	10247	10223	10257	10296	10279
97.5	10255	10288	10292	10308	10309	10330	10347	10329	10316	10285	10265	10238	10280	10318	10305
MAX	10300	10346	10368	10344	10350	10370	10408	10393	10362	10373	10329	10306	10368	10408	10408
DATE	30/01	13/02	28/03	25/04	22/05	10/06	28/07	24/08	03/09	07/10	20/11	16/12	28/03	28/07	28/07
YR	1978	1980	1967	1962	1979	1970	1967	1969	1970	1961	1961	1961	1967	1967	1967
MEAN	10110	10142	10148	10141	10130	10133	10126	10136	10113	10116	10099	10104	10124	10126	10125
S.D.	85	81	83	99	103	110	121	114	104	96	95	82	90	108	100

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION H41422 TIMARU HARBOUR LAT 44 24S LONG 171 15E HT 17M

DATA PERIOD 1 1971 TO 12 1978
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	248	226	248	180	248	240	248	248	240	248	240	248	1390	1472	2862
DATE	27/01	24/02	05/03	30/04	02/05	29/06	15/07	06/08	13/09	10/10	05/11	26/12	27/01	13/09	13/09
YR	1976	1971	1972	1976	1977	1977	1975	1974	1976	1971	1976	1972	1976	1976	1976
MIN	9794	9948	9885	9839	9782	9819	9848	9788	9743	9812	9880	9862	9794	9743	9743
2.5	9969	9999	9966	9905	9909	9937	9887	9888	9861	9908	9938	9925	9939	9897	9914
5	9993	10043	10004	9954	9936	9969	9904	9914	9906	9931	9945	9936	9969	9930	9948
20	10049	10108	10092	10065	10017	10041	9995	10028	10037	10025	10020	10010	10052	10026	10037
40	10110	10153	10149	10133	10099	10105	10086	10112	10096	10081	10096	10055	10117	10095	10107
50	10131	10170	10173	10156	10127	10127	10117	10143	10127	10104	10123	10095	10140	10127	10134
60	10149	10191	10197	10173	10151	10161	10158	10169	10147	10143	10144	10115	10163	10154	10159
80	10197	10233	10236	10228	10213	10212	10234	10226	10205	10193	10193	10166	10210	10212	10210
95	10257	10278	10286	10272	10268	10282	10322	10282	10271	10258	10231	10227	10265	10281	10272
97.5	10277	10305	10301	10289	10283	10305	10341	10297	10301	10287	10254	10241	10282	10310	10296
MAX	10300	10323	10324	10336	10324	10388	10391	10325	10331	10324	10293	10279	10336	10391	10391
DATE	30/01	17/02	24/03	14/04	24/05	04/06	02/07	01/08	21/09	05/10	02/11	15/12	14/04	02/07	02/07
YR	1978	1971	1974	1976	1971	1974	1973	1973	1978	1976	1974	1973	1976	1973	1973
MEAN	10124	10168	10163	10140	10115	10130	10118	10125	10113	10105	10109	10087	10131	10118	10124
S.D.	82	73	85	98	103	96	126	112	109	99	89	86	90	108	100

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION H41323 TIMARU AIRPORT LAT 44 18S LONG 171 14E HT 26M

DATA PERIOD 1 1971 TO 12 1978
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	248	226	248	240	248	240	248	248	240	248	240	248	1450	1472	2922
DATE	27/01	06/02	11/03	30/04	01/05	29/06	24/07	06/08	12/09	10/10	05/11	25/12	27/01	12/09	12/09
YR	1976	1975	1972	1976	1977	1977	1978	1974	1976	1971	1976	1972	1976	1976	1976
MIN	9800	9903	9856	9861	9802	9898	9815	9838	9727	9790	9824	9829	9800	9727	9727
2.5	9946	10000	9970	9892	9909	9949	9889	9876	9873	9891	9900	9910	9915	9893	9906
5	9971	10027	10013	9942	9937	9970	9905	9915	9928	9930	9919	9915	9954	9930	9940
20	10048	10100	10083	10058	10022	10046	9990	10015	10025	10012	10011	9999	10044	10021	10031
40	10101	10145	10137	10124	10087	10104	10072	10105	10101	10065	10083	10053	10107	10095	10102
50	10117	10163	10162	10148	10120	10128	10131	10134	10125	10101	10110	10079	10130	10122	10126
60	10140	10181	10187	10169	10155	10154	10161	10167	10145	10126	10131	10110	10156	10149	10153
80	10192	10227	10235	10225	10212	10212	10230	10222	10198	10181	10181	10159	10207	10211	10209
95	10240	10276	10283	10265	10260	10289	10322	10281	10260	10248	10227	10212	10260	10280	10267
97.5	10261	10294	10295	10286	10278	10313	10337	10294	10312	10271	10241	10231	10278	10309	10294
MAX	10303	10323	10317	10336	10321	10376	10387	10310	10332	10330	10278	10283	10336	10387	10387
DATE	30/01	18/02	23/03	13/04	23/05	03/06	01/07	06/08	12/09	04/10	14/11	23/12	13/04	01/07	01/07
YR	1978	1971	1974	1976	1971	1974	1973	1978	1975	1976	1975	1974	1976	1973	1973
MEAN	10115	10160	10156	10134	10112	10129	10117	10121	10112	10094	10096	10077	10122	10114	10118
S.D.	84	77	86	99	103	94	129	111	106	98	93	89	93	108	101

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION I41901 OAMARU AIRPORT LAT 44 58S LONG 171 5E HT 30M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	246	231	244	236	247	243	256	249	233	236	235	236	1428	1464	2892
DATE	17/01	16/02	11/03	30/04	02/05	29/06	09/07	12/08	12/09	29/10	21/11	24/12	17/01	12/09	17/01
YR	1980	1979	1972	1976	1977	1977	1980	1972	1976	1980	1973	1972	1980	1976	1980
MIN	9733	9887	9905	9846	9805	9867	9831	9740	9740	9825	9858	9852	9733	9740	9733
2.5	9949	9952	9954	9898	9904	9952	9875	9881	9866	9898	9918	9895	9926	9892	9906
5	9964	9997	10008	9950	9931	9980	9904	9917	9908	9969	9942	9933	9959	9932	9947
20	10043	10091	10083	10057	10030	10051	9992	10030	10021	10043	10038	10004	10046	10027	10038
40	10103	10156	10152	10128	10104	10114	10078	10106	10098	10102	10095	10065	10117	10100	10106
50	10127	10174	10181	10155	10139	10144	10114	10138	10126	10123	10115	10093	10143	10132	10137
60	10150	10192	10201	10178	10168	10179	10165	10158	10149	10163	10138	10126	10166	10162	10164
80	10196	10238	10245	10244	10230	10233	10235	10221	10215	10208	10187	10169	10218	10224	10221
95	10239	10285	10299	10283	10297	10300	10322	10283	10284	10268	10241	10232	10277	10295	10283
97.5	10271	10308	10315	10296	10318	10325	10332	10308	10328	10287	10274	10250	10292	10318	10307
MAX	10320	10353	10330	10347	10370	10379	10395	10331	10351	10337	10286	10288	10353	10395	10395
DATE	30/01	13/02	23/03	13/04	22/05	03/06	02/07	01/08	12/09	04/10	01/11	23/12	13/02	02/07	02/07
YR	1978	1980	1974	1976	1979	1974	1973	1973	1975	1976	1974	1974	1980	1973	1973
MEAN	10117	10163	10167	10143	10128	10144	10114	10124	10115	10124	10110	10087	10131	10125	10128
S.D.	92	87	90	104	110	101	128	109	114	95	88	91	97	111	104

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION I50771 TAIAROA HEAD LAT 45 47S LONG 170 44E HT 72M

DATA PERIOD 4 1961 TO 3 1979
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	558	508	558	540	558	540	558	558	540	558	540	558	3262	3312	6574
DATE	27/01	14/02	12/03	26/04	02/05	26/06	18/07	12/08	12/09	10/10	19/11	27/12	27/01	18/07	18/07
YR	1976	1979	1972	1965	1977	1968	1964	1972	1976	1971	1968	1965	1976	1964	1964
MIN	9791	9897	9885	9809	9809	9760	9725	9766	9738	9790	9828	9810	9791	9725	9725
2.5	9931	9963	9961	9913	9914	9867	9875	9875	9882	9899	9895	9925	9925	9889	9906
5	9957	9986	9992	9940	9937	9931	9917	9922	9926	9924	9920	9947	9955	9928	9939
20	10041	10079	10073	10047	10030	10023	10011	10029	10018	10015	10006	10027	10042	10021	10032
40	10095	10131	10132	10109	10097	10098	10087	10118	10090	10082	10072	10089	10105	10095	10100
50	10115	10152	10153	10137	10122	10127	10126	10142	10114	10109	10104	10115	10130	10124	10127
60	10137	10173	10179	10166	10149	10160	10162	10171	10138	10137	10128	10136	10152	10152	10152
80	10183	10216	10223	10226	10209	10211	10227	10225	10196	10192	10181	10179	10203	10212	10208
95	10231	10268	10271	10275	10264	10294	10309	10296	10278	10255	10245	10223	10257	10284	10271
97.5	10257	10282	10288	10300	10287	10324	10337	10323	10308	10277	10266	10238	10274	10309	10296
MAX	10307	10333	10361	10338	10324	10365	10394	10393	10351	10364	10330	10310	10361	10394	10394
DATE	30/01	18/02	28/03	13/04	24/05	03/06	28/07	24/08	03/09	07/10	20/11	16/12	28/03	28/07	28/07
YR	1978	1971	1967	1976	1971	1974	1967	1969	1970	1961	1961	1961	1967	1967	1967
MEAN	10109	10144	10147	10130	10117	10119	10120	10131	10108	10103	10093	10102	10121	10116	10118
S.D.	85	82	84	102	98	113	121	115	106	100	99	85	92	110	101

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION I50831 INVERMAY, TAIERI LAT 45 51S LONG 170 22E HT 24M

DATA PERIOD 1 1962 TO 11 1962
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	31	28	31	30	31	30	31	31	30	31	10	31	161	184	345
DATE	22/01	08/02	11/03	15/04	07/05	02/06	04/07	31/08	06/09	24/10	04/11	09/12	04/11	02/06	02/06
YR	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1961	1962	1962	1962
MIN	9966	9948	9944	9955	9988	9864	9948	9869	9929	9923	9871	9954	9871	9864	9864
2.5	9978	9955	9945	9971	9993	9867	9956	9918	9930	9927	99999	9985	9944	9906	9917
5	9978	9955	9945	9971	9993	9867	9956	9918	9930	9927	99999	9985	9958	9931	9947
20	10105	10018	10051	10062	10068	9956	10020	9995	10013	9989	99999	10118	10055	10007	10028
40	10139	10083	10112	10128	10118	10065	10122	10113	10096	10043	99999	10155	10120	10091	10111
50	10156	10110	10142	10144	10133	10085	10172	10128	10119	10085	99999	10178	10146	10118	10128
60	10177	10150	10174	10170	10161	10107	10200	10166	10134	10100	99999	10203	10171	10134	10154
80	10217	10206	10194	10289	10214	10173	10270	10196	10174	10145	99999	10222	10220	10197	10208
95	10258	10240	10246	10321	10281	10274	10354	10268	10264	10197	99999	10297	10288	10273	10274
97.5	10267	10241	10251	10322	10300	10275	10368	10268	10277	10214	99999	10308	10308	10292	10304
MAX	10267	10241	10251	10322	10300	10275	10368	10268	10277	10214	10186	10308	10322	10368	10368
DATE	25/01	20/02	24/03	26/04	22/05	30/06	11/07	12/08	18/09	16/10	10/11	16/12	26/04	11/07	11/07
YR	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1961	1962	1962	1962
MEAN	10151	10113	10126	10161	10140	10071	10154	10112	10105	10068	0	10170	10137	10109	10122
S.D.	75	89	83	108	80	113	121	101	96	82	0	73	95	104	100

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION I50921 DUNEDIN AIRPORT LAT 45 56S LONG 170 12E HT 1M

DATA PERIOD 12 1962 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	558	509	558	540	558	516	542	558	540	558	561	589	3315	3272	6587
DATE	17/01	26/02	16/03	26/04	02/05	26/06	18/07	06/08	12/09	11/10	19/11	27/12	17/01	18/07	18/07
YR	1980	1980	1980	1965	1977	1968	1964	1964	1976	1971	1968	1965	1980	1964	1964
MIN	9741	9906	9831	9824	9813	9766	9716	9759	9730	9789	9827	9820	9741	9716	9716
2.5	9910	9964	9965	9914	9903	9902	9889	9881	9874	9894	9898	9917	9921	9892	9906
5	9954	9996	9990	9944	9936	9950	9922	9923	9923	9924	9920	9943	9952	9929	9942
20	10035	10076	10075	10045	10027	10040	10018	10027	10004	10016	10007	10023	10040	10022	10032
40	10089	10127	10128	10106	10096	10106	10098	10106	10077	10081	10068	10078	10099	10095	10097
50	10110	10151	10152	10134	10128	10142	10133	10134	10100	10109	10096	10104	10124	10123	10124
60	10131	10170	10172	10162	10155	10170	10166	10164	10128	10137	10120	10129	10146	10153	10149
80	10178	10213	10220	10224	10220	10223	10224	10220	10187	10193	10172	10169	10197	10213	10205
95	10224	10266	10264	10269	10281	10302	10304	10297	10273	10251	10239	10214	10251	10288	10268
97.5	10245	10282	10287	10289	10300	10325	10323	10325	10301	10271	10255	10227	10270	10309	10294
MAX	10299	10334	10351	10337	10361	10374	10394	10389	10344	10318	10315	10273	10351	10394	10394
DATE	30/01	18/02	28/03	25/04	22/05	03/06	28/07	24/08	03/09	04/10	01/11	23/12	28/03	28/07	28/07
YR	1978	1971	1967	1963	1979	1974	1967	1969	1970	1976	1969	1974	1967	1967	1967
MEAN	10103	10142	10144	10128	10121	10132	10125	10125	10098	10102	10089	10094	10116	10117	10117
S.D.	86	81	84	99	105	108	116	114	107	99	95	83	91	109	100

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION I58074 QUEENSTOWN AIRPORT LAT 45 1S LONG 168 44E HT 349M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	278	270	279	1632	1655	3287
DATE	27/01	16/02	16/03	30/04	01/05	05/06	24/07	12/08	12/09	29/10	21/11	24/12	27/01	12/09	12/09
YR	1976	1979	1980	1976	1977	1980	1978	1972	1976	1980	1973	1972	1976	1976	1976
MIN	9785	9852	9886	9855	9821	9887	9813	9753	9728	9835	9838	9799	9785	9728	9728
2.5	9942	9964	9980	9931	9917	9960	9881	9904	9874	9925	9925	9912	9936	9913	9922
5	9961	10003	10008	9962	9948	9985	9920	9938	9927	9951	9952	9935	9961	9948	9955
20	10041	10089	10083	10068	10048	10077	10011	10038	10032	10036	10030	10009	10048	10038	10043
40	10085	10141	10150	10131	10111	10137	10091	10119	10099	10097	10087	10064	10112	10110	10111
50	10115	10171	10169	10157	10156	10166	10129	10141	10128	10118	10119	10087	10136	10138	10137
60	10138	10186	10186	10183	10185	10195	10171	10165	10149	10148	10139	10119	10159	10169	10164
80	10192	10227	10241	10244	10247	10253	10253	10227	10210	10209	10185	10158	10211	10233	10221
95	10235	10277	10294	10295	10312	10330	10335	10303	10276	10269	10237	10214	10270	10309	10288
97.5	10251	10292	10306	10324	10347	10351	10348	10325	10325	10286	10267	10235	10291	10334	10314
MAX	10302	10336	10327	10361	10391	10410	10425	10350	10347	10320	10292	10265	10361	10425	10425
DATE	30/01	13/02	23/03	13/04	09/05	04/06	03/07	01/08	13/09	04/10	14/11	15/12	13/04	03/07	03/07
YR	1978	1980	1974	1976	1980	1974	1973	1973	1975	1976	1975	1973	1976	1973	1973
MEAN	10109	10156	10162	10149	10144	10165	10129	10131	10116	10120	10108	10082	10127	10134	10131
S.D.	88	84	87	101	113	103	127	108	108	93	86	85	93	110	102

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION I59234 ALEXANDRA LAT 45 16S LONG 169 23E HT 141M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	253	279	269	278	270	279	279	270	279	268	279	1627	1655	3282
DATE	27/01	16/02	18/03	30/04	02/05	05/06	24/07	12/08	12/09	29/10	21/11	25/12	27/01	12/09	12/09
YR	1976	1979	1975	1976	1977	1980	1978	1972	1976	1980	1973	1972	1976	1976	1976
MIN	9773	9862	9819	9858	9833	9873	9826	9755	9735	9817	9830	9773	9773	9735	9735
2.5	9934	9955	9958	9941	9886	9955	9879	9908	9869	9922	9914	9901	9928	9895	9912
5	9956	10000	9991	9964	9934	9982	9912	9927	9916	9959	9938	9932	9957	9939	9949
20	10038	10090	10079	10072	10035	10076	10006	10031	10022	10042	10030	10008	10045	10033	10040
40	10091	10147	10152	10135	10117	10137	10094	10113	10100	10092	10091	10060	10111	10109	10110
50	10119	10167	10170	10162	10160	10170	10137	10140	10127	10117	10118	10080	10138	10139	10138
60	10139	10184	10191	10184	10184	10194	10177	10172	10146	10149	10139	10115	10158	10170	10163
80	10186	10232	10241	10244	10244	10256	10254	10226	10205	10200	10187	10157	10209	10231	10220
95	10228	10279	10296	10293	10314	10323	10336	10284	10272	10256	10238	10220	10270	10305	10286
97.5	10239	10302	10312	10312	10346	10354	10346	10314	10319	10275	10266	10238	10290	10331	10313
MAX	10306	10346	10334	10367	10383	10413	10422	10354	10352	10324	10287	10269	10367	10422	10422
DATE	30/01	13/02	29/03	13/04	09/05	04/06	03/07	01/08	12/09	05/10	14/11	23/12	13/04	03/07	03/07
YR	1978	1980	1974	1976	1980	1974	1973	1973	1975	1980	1975	1977	1976	1973	1973
MEAN	10107	10157	10161	10150	10140	10164	10129	10130	10113	10117	10106	10081	10127	10132	10129
S.D.	88	85	93	99	115	103	129	109	110	92	90	88	95	112	104

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION I68433 INVERCARGILL AIRPORT LAT 46 25S LONG 168 20E HT 0M

DATA PERIOD 2 1960 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	651	594	651	630	651	630	651	651	630	651	630	651	3807	3864	7671
DATE	16/01	16/02	16/03	26/04	29/05	26/06	18/07	06/08	12/09	11/10	19/11	27/12	16/01	18/07	18/07
YR	1980	1979	1980	1965	1963	1968	1964	1964	1976	1971	1968	1965	1980	1964	1964
MIN	9788	9882	9839	9838	9840	9768	9704	9745	9724	9785	9833	9830	9788	9704	9704
2.5	9924	9958	9964	9918	9914	9890	9881	9890	9881	9905	9898	9921	9926	9893	9910
5	9953	9999	9986	9959	9931	9934	9915	9931	9930	9930	9924	9950	9958	9931	9942
20	10038	10070	10064	10047	10032	10033	10012	10028	10006	10021	10006	10026	10039	10021	10031
40	10088	10119	10124	10107	10100	10103	10084	10107	10078	10082	10065	10083	10099	10091	10095
50	10112	10141	10149	10135	10125	10133	10120	10131	10103	10110	10092	10108	10123	10121	10122
60	10133	10162	10169	10164	10150	10163	10157	10164	10129	10137	10118	10128	10146	10150	10148
80	10182	10209	10217	10225	10215	10221	10222	10223	10185	10190	10174	10167	10197	10212	10204
95	10225	10261	10259	10281	10277	10294	10298	10288	10278	10252	10241	10217	10251	10284	10267
97.5	10240	10276	10278	10297	10302	10321	10329	10316	10298	10267	10259	10230	10270	10306	10292
MAX	10293	10328	10342	10336	10356	10379	10386	10389	10334	10359	10335	10301	10342	10389	10389
DATE	30/01	18/02	28/03	13/04	22/05	03/06	28/07	24/08	03/09	07/10	20/11	16/12	28/03	24/08	24/08
YR	1978	1971	1967	1976	1979	1974	1967	1969	1970	1961	1961	1961	1967	1969	1969
MEAN	10105	10137	10140	10131	10120	10126	10116	10124	10099	10103	10089	10097	10116	10115	10116
S.D.	84	80	83	98	103	110	118	112	106	98	95	82	90	109	100

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION I69481 NUGGET POINT LAT 46 27S LONG 169 49E HT 129M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	269	279	258	264	259	264	279	265	277	1624	1603	3227
DATE	17/01	16/02	12/03	12/04	02/05	29/06	09/07	12/08	12/09	29/10	21/11	24/12	17/01	12/09	17/01
YR	1980	1979	1972	1979	1977	1977	1980	1972	1976	1980	1973	1972	1980	1976	1980
MIN	9719	9855	9879	9845	9798	9863	9817	9741	9735	9807	9812	9802	9719	9735	9719
2.5	9919	9953	9955	9907	9877	9941	9865	9880	9848	9914	9907	9880	9917	9889	9900
5	9947	9985	9987	9938	9916	9968	9899	9907	9908	9958	9928	9932	9948	9925	9938
20	10033	10076	10075	10057	10022	10055	9987	10016	10009	10036	10019	10012	10038	10020	10029
40	10084	10140	10144	10118	10096	10111	10075	10095	10079	10087	10083	10057	10104	10091	10098
50	10109	10158	10164	10145	10132	10141	10116	10125	10108	10114	10111	10083	10130	10122	10126
60	10134	10180	10189	10173	10164	10177	10147	10147	10132	10143	10133	10118	10153	10151	10152
80	10188	10227	10236	10232	10222	10226	10222	10207	10193	10192	10182	10160	10206	10213	10210
95	10231	10275	10288	10277	10277	10299	10308	10268	10269	10250	10237	10221	10264	10282	10272
97.5	10255	10288	10298	10292	10311	10320	10326	10292	10314	10281	10260	10247	10283	10309	10297
MAX	10310	10341	10321	10347	10366	10384	10388	10318	10332	10328	10292	10281	10347	10388	10388
DATE	30/01	13/02	23/03	13/04	22/05	03/06	03/07	04/08	12/09	04/10	04/11	23/12	13/04	03/07	03/07
YR	1978	1980	1974	1976	1979	1974	1973	1977	1975	1976	1979	1974	1976	1973	1973
MEAN	10104	10150	10156	10136	10121	10139	10108	10112	10099	10112	10100	10080	10121	10115	10118
S.D.	92	87	91	101	111	100	126	107	113	93	92	88	96	109	103

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J49000 CHRISTMAS IS. LINE IS LAT 1 59N LONG 157 29W HT 3M

DATA PERIOD 12 1976 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	124	113	124	120	124	120	124	124	120	124	120	155	756	736	1492
DATE	29/01	01/02	10/03	10/04	06/05	12/06	09/07	26/08	24/09	02/10	20/11	06/12	06/12	09/07	06/12
YR	1978	1978	1980	1979	1979	1977	1977	1977	1979	1979	1977	1976	1976	1977	1976
MIN	10055	10062	10059	10057	10075	10071	10062	10073	10075	10081	10075	10044	10044	10062	10044
2.5	10060	10064	10064	10062	10077	10073	10069	10078	10080	10086	10079	10048	10062	10075	10068
5	10062	10074	10069	10068	10078	10078	10071	10082	10089	10090	10082	10065	10069	10080	10072
20	10077	10084	10077	10087	10091	10090	10087	10093	10100	10100	10091	10081	10081	10092	10087
40	10085	10093	10089	10095	10098	10097	10097	10102	10108	10106	10097	10089	10091	10101	10097
50	10090	10097	10093	10100	10100	10100	10103	10105	10111	10109	10101	10092	10096	10105	10100
60	10095	10101	10099	10103	10103	10103	10105	10112	10115	10114	10104	10097	10100	10109	10105
80	10105	10109	10107	10112	10114	10109	10116	10120	10124	10122	10115	10107	10110	10118	10114
95	10127	10125	10119	10121	10127	10122	10133	10129	10129	10135	10128	10120	10124	10129	10127
97.5	10132	10130	10126	10131	10131	10126	10139	10133	10130	10140	10130	10125	10129	10134	10131
MAX	10143	10131	10140	10140	10146	10127	10142	10140	10135	10146	10138	10144	10144	10146	10146
DATE	10/01	28/02	06/03	22/04	27/05	04/06	11/07	19/08	16/09	04/10	04/11	17/12	17/12	04/10	04/10
YR	1978	1978	1978	1979	1979	1979	1979	1979	1979	1980	1978	1979	1979	1980	1980
MEAN	10091	10097	10093	10098	10102	10100	10101	10107	10111	10111	10103	10093	10096	10105	10100
S.D.	18	14	16	16	14	12	17	15	13	13	13	17	17	15	16

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J61000 TARAWA, KIRIBATI LAT 1 21N LONG 172 56E HT 2M

DATA PERIOD 5 1977 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	93	85	93	90	124	120	124	124	120	124	120	124	605	736	1341
DATE	01/01	13/02	08/03	16/04	11/05	02/06	02/07	01/08	26/09	28/10	19/11	31/12	31/12	11/05	31/12
YR	1979	1980	1980	1980	1978	1980	1980	1979	1979	1978	1980	1978	1978	1978	1978
MIN	10042	10067	10059	10062	10059	10070	10061	10076	10073	10072	10067	10040	10040	10059	10040
2.5	10051	10068	10065	10066	10067	10076	10076	10080	10080	10077	10069	10056	10061	10076	10066
5	10055	10073	10069	10072	10076	10079	10078	10084	10084	10081	10073	10062	10066	10080	10072
20	10069	10084	10079	10090	10089	10091	10087	10090	10095	10090	10080	10075	10078	10090	10085
40	10084	10091	10090	10098	10098	10096	10093	10096	10103	10099	10087	10086	10089	10098	10093
50	10088	10094	10094	10101	10101	10099	10099	10099	10107	10103	10089	10090	10092	10101	10097
60	10092	10097	10098	10103	10104	10101	10102	10103	10110	10106	10093	10092	10096	10105	10101
80	10102	10109	10106	10111	10111	10109	10107	10116	10115	10112	10103	10099	10105	10112	10109
95	10118	10122	10118	10122	10125	10114	10127	10124	10125	10124	10115	10109	10117	10123	10120
97.5	10121	10126	10130	10129	10130	10116	10131	10127	10127	10129	10121	10118	10122	10127	10126
MAX	10127	10132	10138	10140	10144	10120	10132	10133	10131	10131	10129	10122	10140	10144	10144
DATE	11/01	28/02	01/03	20/04	26/05	02/06	12/07	20/08	23/09	06/10	14/11	18/12	20/04	26/05	26/05
YR	1978	1978	1978	1979	1979	1979	1979	1979	1977	1980	1977	1979	1979	1979	1979
MEAN	10086	10095	10093	10099	10101	10098	10098	10102	10106	10102	10092	10088	10092	10101	10097
S.D.	17	15	16	14	14	10	13	13	12	12	13	14	15	13	15

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J62900 ARURAE, KIRIBATI LAT 2 38S LONG 176 48E HT 7M

DATA PERIOD 4 1977 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	93	85	93	120	124	120	124	124	120	124	120	124	635	736	1371
DATE	03/01	12/02	25/03	10/04	11/05	30/06	02/07	04/08	25/09	04/10	23/11	28/12	03/01	11/05	03/01
YR	1979	1978	1980	1979	1978	1980	1980	1979	1979	1979	1977	1978	1979	1978	1979
MIN	10040	10061	10059	10058	10059	10071	10060	10062	10069	10070	10058	10040	10040	10059	10040
2.5	10045	10062	10062	10064	10067	10073	10074	10073	10081	10081	10063	10052	10056	10073	10062
5	10048	10067	10065	10070	10072	10080	10077	10076	10084	10084	10069	10055	10062	10079	10069
20	10071	10079	10074	10085	10087	10090	10086	10091	10097	10092	10080	10072	10076	10090	10083
40	10079	10088	10090	10095	10100	10098	10094	10098	10106	10101	10088	10082	10088	10099	10094
50	10082	10092	10094	10101	10104	10100	10099	10102	10109	10105	10091	10088	10091	10103	10098
60	10089	10097	10098	10103	10106	10103	10102	10108	10112	10109	10094	10090	10095	10107	10102
80	10101	10109	10106	10110	10113	10110	10110	10117	10119	10116	10107	10098	10106	10115	10111
95	10123	10124	10128	10124	10131	10119	10127	10127	10128	10130	10117	10110	10120	10127	10125
97.5	10127	10131	10133	10130	10136	10121	10138	10132	10134	10136	10123	10116	10128	10132	10131
MAX	10129	10140	10136	10140	10149	10128	10144	10139	10135	10142	10132	10125	10140	10149	10149
DATE	11/01	28/02	06/03	21/04	26/05	02/06	12/07	20/08	24/09	16/10	02/11	18/12	21/04	26/05	26/05
YR	1978	1978	1978	1979	1979	1979	1979	1979	1977	1978	1980	1979	1979	1979	1979
MEAN	10084	10093	10093	10098	10102	10100	10099	10103	10108	10105	10093	10085	10091	10103	10097
S.D.	20	17	18	16	16	12	15	15	13	14	15	16	17	14	17

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J63100 NANUMEA IS, TUVALU LAT 5 40S LONG 176 8E HT 2M

DATA PERIOD 4 1977 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	93	85	93	120	124	120	124	124	120	124	120	124	635	736	1371
DATE	03/01	14/02	26/03	10/04	12/05	04/06	09/07	04/08	26/09	04/10	25/11	28/12	03/01	12/05	03/01
YR	1979	1980	1980	1979	1978	1980	1977	1979	1979	1979	1977	1978	1979	1978	1979
MIN	10013	10042	10037	10046	10043	10058	10055	10060	10063	10054	10032	10013	10013	10043	10013
2.5	10019	10049	10041	10053	10053	10061	10056	10062	10065	10066	10045	10029	10034	10061	10044
5	10028	10051	10048	10055	10059	10068	10061	10065	10072	10068	10055	10035	10042	10064	10054
20	10047	10060	10059	10069	10073	10077	10073	10075	10082	10079	10067	10055	10060	10076	10068
40	10062	10073	10071	10080	10084	10084	10081	10084	10090	10086	10074	10069	10072	10085	10079
50	10067	10078	10079	10084	10086	10085	10085	10089	10094	10090	10076	10073	10076	10088	10084
60	10072	10081	10086	10088	10091	10087	10089	10091	10097	10093	10079	10075	10080	10091	10087
80	10085	10093	10096	10095	10097	10094	10098	10101	10103	10100	10094	10085	10092	10100	10096
95	10110	10104	10112	10107	10114	10105	10115	10113	10113	10113	10103	10096	10105	10112	10110
97.5	10120	10110	10115	10114	10122	10107	10124	10116	10116	10118	10105	10100	10111	10117	10114
MAX	10128	10125	10120	10123	10131	10109	10126	10123	10124	10134	10121	10109	10128	10134	10134
DATE	12/01	28/02	01/03	20/04	28/05	05/06	13/07	19/08	24/09	16/10	14/11	18/12	12/01	16/10	16/10
YR	1978	1978	1978	1979	1979	1979	1979	1980	1977	1978	1977	1979	1978	1978	1978
MEAN	10067	10077	10078	10082	10086	10086	10086	10089	10093	10090	10078	10070	10076	10088	10082
S.D.	23	17	19	16	16	10	16	14	12	13	15	18	19	14	18

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J64300 FUNAFUTI, TUVALU LAT 8 31S LONG 179 12E HT 1M

DATA PERIOD 5 1977 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	93	85	93	90	124	120	124	124	120	124	120	124	605	736	1341
DATE	03/01	12/02	26/03	03/04	05/05	30/06	09/07	04/08	25/09	26/10	25/11	28/12	03/01	25/09	03/01
YR	1978	1980	1980	1980	1979	1980	1977	1979	1979	1978	1977	1978	1978	1979	1978
MIN	10003	10052	10031	10043	10077	10077	10078	10074	10071	10071	10064	10015	10003	10071	10003
2.5	10022	10055	10040	10050	10080	10082	10084	10083	10087	10079	10066	10036	10044	10082	10052
5	10039	10062	10055	10061	10083	10088	10089	10090	10091	10083	10070	10045	10051	10086	10064
20	10059	10071	10074	10087	10092	10096	10095	10101	10102	10096	10080	10067	10072	10097	10084
40	10073	10085	10082	10098	10105	10103	10105	10109	10110	10104	10087	10078	10084	10105	10096
50	10078	10089	10088	10104	10107	10105	10107	10112	10112	10108	10091	10085	10089	10108	10102
60	10084	10095	10096	10108	10110	10109	10109	10117	10118	10110	10096	10088	10094	10111	10107
80	10102	10107	10107	10115	10119	10117	10119	10123	10125	10119	10107	10095	10107	10120	10117
95	10127	10118	10130	10125	10134	10124	10134	10133	10134	10129	10122	10112	10122	10133	10130
97.5	10129	10122	10134	10131	10138	10129	10140	10138	10140	10136	10126	10117	10128	10138	10134
MAX	10139	10130	10137	10138	10150	10140	10145	10142	10148	10145	10136	10129	10139	10150	10150
DATE	11/01	28/02	07/03	20/04	25/05	02/06	12/07	15/08	24/09	16/10	14/11	19/12	11/01	25/05	25/05
YR	1978	1978	1978	1979	1979	1978	1979	1978	1977	1978	1977	1979	1978	1979	1979
MEAN	10079	10089	10090	10100	10107	10106	10108	10112	10113	10107	10093	10081	10089	10109	10100
S.D.	25	18	21	19	15	11	13	14	14	14	16	20	21	14	20

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J68000 NANDI AIRPORT, FIJI LAT 17 45S LONG 177 27E HT 19M

DATA PERIOD 1 1960 TO 12 1979
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	620	565	620	600	620	600	620	620	600	620	600	620	3625	3680	7305
DATE	05/01	09/02	17/03	10/04	03/05	27/06	30/07	01/08	26/09	24/10	16/11	21/12	09/02	24/10	24/10
YR	1978	1965	1977	1967	1970	1972	1972	1975	1979	1972	1975	1964	1965	1972	1972
MIN	9974	9875	10001	9970	10039	10060	10067	10070	10066	9852	10021	9939	9875	9852	9852
2.5	10013	10011	10041	10053	10081	10092	10090	10097	10090	10080	10059	10022	10026	10088	10040
5	10025	10028	10048	10065	10090	10100	10100	10104	10098	10088	10064	10037	10040	10096	10052
20	10050	10057	10071	10085	10106	10116	10120	10121	10117	10109	10085	10064	10067	10113	10083
40	10068	10073	10087	10099	10114	10126	10129	10133	10127	10119	10098	10081	10085	10124	10104
50	10074	10082	10092	10104	10118	10131	10134	10138	10132	10124	10105	10088	10091	10129	10113
60	10080	10089	10097	10109	10122	10135	10139	10143	10136	10129	10110	10093	10097	10134	10120
80	10096	10100	10109	10120	10132	10144	10148	10153	10145	10140	10124	10106	10111	10145	10135
95	10118	10116	10125	10131	10145	10157	10162	10166	10160	10156	10139	10121	10128	10160	10153
97.5	10122	10123	10128	10137	10148	10162	10165	10172	10168	10163	10146	10127	10134	10165	10160
MAX	10155	10143	10146	10146	10162	10192	10180	10185	10183	10174	10159	10139	10159	10192	10192
DATE	16/01	07/02	09/03	21/04	06/05	22/06	04/07	08/08	04/09	30/10	09/11	18/12	09/11	22/06	22/06
YR	1970	1975	1978	1967	1974	1974	1960	1965	1971	1972	1963	1979	1963	1974	1974
MEAN	10073	10077	10090	10101	10118	10130	10133	10137	10130	10123	10104	10084	10088	10129	10108
S.D.	28	29	23	22	17	17	18	19	18	23	23	26	28	20	31

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J68300 NAUSORI AIRPORT, FIJI LAT 18 3S LONG 178 34E HT 6M

DATA PERIOD 10 1973 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	217	198	217	206	217	210	217	217	240	248	240	248	1326	1349	2675
DATE	31/01	01/02	17/03	06/04	23/05	22/06	01/07	01/08	26/09	31/10	16/11	30/12	01/02	01/08	01/02
YR	1975	1975	1977	1975	1979	1978	1979	1975	1979	1974	1975	1978	1975	1975	1975
MIN	9974	9930	9996	10002	10069	10082	10073	10062	10068	10067	10030	9955	9930	10062	9930
2.5	10007	10001	10025	10044	10083	10089	10095	10089	10082	10080	10053	10017	10015	10085	10034
5	10013	10009	10041	10058	10089	10096	10101	10097	10099	10086	10064	10028	10034	10095	10050
20	10047	10058	10068	10084	10105	10114	10122	10118	10122	10110	10086	10065	10066	10115	10084
40	10065	10079	10083	10099	10118	10125	10133	10134	10135	10125	10100	10084	10085	10128	10106
50	10073	10086	10090	10107	10124	10129	10139	10140	10140	10131	10104	10092	10093	10134	10115
60	10078	10095	10098	10112	10128	10135	10145	10148	10145	10135	10112	10097	10100	10140	10123
80	10096	10107	10111	10120	10145	10147	10155	10158	10154	10147	10130	10111	10115	10152	10142
95	10121	10123	10130	10134	10157	10165	10171	10173	10167	10162	10148	10129	10133	10166	10160
97.5	10129	10130	10134	10142	10159	10168	10176	10177	10174	10172	10155	10135	10143	10173	10166
MAX	10148	10144	10155	10153	10169	10202	10187	10186	10183	10184	10161	10147	10161	10202	10202
DATE	11/01	07/02	09/03	28/04	06/05	22/06	16/07	17/08	27/09	21/10	14/11	18/12	14/11	22/06	22/06
YR	1978	1975	1978	1979	1974	1974	1974	1976	1977	1973	1977	1979	1977	1974	1974
MEAN	10071	10082	10089	10102	10124	10130	10138	10138	10137	10128	10106	10087	10089	10133	10111
S.D.	30	32	27	24	20	20	20	23	21	22	25	30	31	22	34

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J76200 APIA, W.SAMOA LAT 13 48S LONG 171 47W HT 2M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	279	270	278	1631	1656	3287
DATE	01/01	15/02	24/03	02/04	13/05	26/06	15/07	10/08	24/09	09/10	06/11	10/12	01/01	09/10	01/01
YR	1973	1978	1980	1980	1972	1972	1977	1978	1979	1973	1973	1976	1973	1973	1973
MIN	9951	10009	10045	10055	10079	10082	10092	10078	10091	10069	10042	10004	9951	10069	9951
2.5	10023	10056	10059	10078	10092	10101	10099	10100	10102	10090	10073	10030	10048	10097	10059
5	10036	10063	10069	10087	10097	10110	10102	10106	10110	10096	10080	10048	10059	10101	10072
20	10068	10084	10089	10098	10109	10117	10120	10124	10123	10112	10094	10074	10084	10117	10098
40	10085	10101	10104	10108	10118	10126	10128	10133	10134	10124	10104	10087	10099	10127	10112
50	10092	10106	10108	10113	10122	10129	10133	10137	10137	10128	10108	10094	10104	10131	10119
60	10097	10112	10113	10117	10125	10133	10137	10141	10142	10130	10111	10100	10109	10135	10124
80	10109	10121	10122	10125	10134	10141	10146	10149	10149	10139	10123	10115	10121	10145	10136
95	10127	10137	10135	10137	10150	10150	10163	10162	10157	10155	10136	10133	10134	10156	10151
97.5	10139	10139	10146	10144	10156	10154	10167	10166	10161	10158	10139	10136	10139	10162	10156
MAX	10150	10152	10161	10151	10167	10165	10182	10175	10172	10171	10155	10147	10161	10182	10182
DATE	10/01	03/02	07/03	30/04	05/05	20/06	15/07	16/08	20/09	14/10	12/11	25/12	07/03	15/07	15/07
YR	1978	1975	1978	1974	1974	1974	1974	1976	1975	1978	1973	1975	1978	1974	1974
MEAN	10088	10103	10106	10112	10122	10129	10133	10136	10136	10126	10108	10092	10101	10130	10116
S.D.	28	22	20	16	16	13	17	16	15	17	17	25	23	16	25

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J80000 PENRHYN, COOK IS LAT 9 0S LONG 158 3W HT 1M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	279	270	279	1632	1656	3288
DATE	02/01	12/02	31/03	16/04	03/05	26/06	08/07	05/08	03/09	17/10	23/11	12/12	12/12	03/09	12/12
YR	1973	1978	1972	1977	1972	1972	1977	1979	1972	1972	1976	1974	1974	1972	1974
MIN	10036	10045	10048	10051	10060	10061	10061	10075	10058	10062	10054	10033	10033	10058	10033
2.5	10045	10059	10061	10061	10070	10076	10069	10082	10072	10074	10062	10043	10052	10074	10059
5	10051	10063	10065	10067	10076	10080	10075	10085	10078	10079	10067	10048	10059	10079	10066
20	10068	10077	10078	10081	10088	10092	10091	10096	10099	10093	10079	10070	10076	10093	10083
40	10081	10089	10087	10091	10097	10101	10100	10107	10107	10103	10090	10082	10087	10102	10095
50	10085	10095	10091	10095	10100	10103	10106	10111	10111	10108	10096	10089	10092	10107	10100
60	10089	10099	10097	10099	10105	10107	10111	10115	10117	10110	10102	10094	10097	10111	10105
80	10102	10109	10107	10109	10113	10115	10123	10126	10128	10120	10112	10105	10107	10121	10115
95	10121	10124	10120	10121	10126	10125	10132	10138	10139	10131	10124	10125	10122	10133	10130
97.5	10129	10129	10129	10128	10131	10128	10141	10143	10143	10135	10129	10130	10128	10138	10135
MAX	10153	10134	10152	10139	10145	10139	10156	10153	10165	10141	10133	10137	10153	10165	10165
DATE	10/01	19/02	28/03	23/04	27/05	10/06	03/07	18/08	24/09	16/10	04/11	24/12	10/01	24/09	24/09
YR	1978	1980	1974	1979	1979	1976	1975	1975	1976	1975	1978	1975	1978	1976	1976
MEAN	10085	10093	10092	10095	10101	10103	10106	10111	10112	10106	10096	10087	10091	10107	10099
S.D.	21	18	17	16	15	13	18	16	17	15	17	21	19	16	19

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J81100 PUKAPUKA, COOK IS LAT 10 53S LONG 165 49W HT 2M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	269	279	270	279	278	270	279	270	279	1631	1655	3286
DATE	18/01	16/02	10/03	10/04	13/05	26/06	10/07	05/08	25/09	25/10	30/11	08/12	18/01	10/07	18/01
YR	1979	1978	1980	1977	1972	1972	1977	1979	1979	1978	1980	1976	1979	1977	1979
MIN	10008	10029	10042	10047	10058	10061	10043	10067	10069	10064	10053	10013	10008	10043	10008
2.5	10029	10049	10053	10063	10072	10074	10080	10075	10084	10075	10058	10037	10046	10075	10053
5	10037	10057	10062	10067	10074	10081	10081	10083	10089	10077	10065	10046	10054	10080	10062
20	10064	10073	10074	10081	10086	10091	10091	10098	10098	10094	10078	10062	10072	10093	10081
40	10076	10084	10085	10090	10095	10099	10101	10106	10108	10101	10088	10075	10083	10101	10093
50	10081	10089	10090	10093	10098	10102	10104	10109	10113	10104	10092	10080	10088	10105	10097
60	10086	10093	10094	10095	10102	10105	10108	10113	10115	10109	10095	10085	10092	10108	10101
80	10095	10103	10101	10104	10110	10112	10118	10121	10124	10117	10105	10098	10102	10117	10111
95	10111	10115	10111	10117	10120	10122	10130	10132	10133	10129	10115	10115	10114	10130	10125
97.5	10114	10119	10120	10120	10129	10127	10135	10138	10137	10134	10121	10121	10120	10134	10130
MAX	10154	10197	10141	10129	10143	10136	10150	10147	10145	10140	10132	10131	10197	10150	10197
DATE	10/01	09/02	28/03	23/04	01/05	30/06	14/07	18/08	20/09	23/10	12/11	23/12	09/02	14/07	09/02
YR	1978	1976	1974	1979	1974	1975	1974	1975	1975	1974	1973	1975	1976	1974	1976
MEAN	10079	10088	10088	10092	10098	10102	10104	10109	10111	10105	10091	10080	10086	10105	10096
S.D.	22	19	16	14	14	13	15	14	14	14	15	21	19	15	19

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J82200 ALOFI, NIUE IS LAT 19 3S LONG 169 55W HT 21M

DATA PERIOD 7 1976 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	124	113	123	120	124	120	155	155	150	155	150	155	785	859	1644
DATE	29/01	18/02	24/03	14/04	12/05	30/06	17/07	10/08	08/09	04/10	26/11	11/12	14/04	30/06	14/04
YR	1980	1978	1980	1980	1978	1979	1976	1978	1976	1979	1978	1979	1980	1979	1980
MIN	10015	10025	10014	10007	10068	10052	10066	10057	10072	10066	10052	10016	10007	10052	10007
2.5	10033	10040	10020	10049	10089	10088	10080	10079	10087	10084	10074	10039	10036	10087	10052
5	10037	10051	10034	10065	10093	10091	10095	10090	10097	10091	10080	10053	10051	10094	10065
20	10066	10068	10073	10088	10107	10119	10124	10127	10118	10116	10099	10083	10080	10118	10094
40	10086	10088	10088	10101	10122	10132	10139	10140	10134	10130	10114	10098	10097	10133	10116
50	10093	10099	10094	10106	10127	10140	10142	10144	10141	10139	10119	10103	10104	10140	10124
60	10104	10109	10102	10112	10133	10146	10148	10152	10147	10146	10128	10109	10112	10145	10132
80	10122	10130	10121	10124	10147	10157	10162	10166	10162	10159	10140	10123	10128	10159	10149
95	10146	10145	10136	10143	10161	10173	10174	10187	10175	10175	10159	10142	10147	10174	10170
97.5	10151	10151	10155	10147	10163	10177	10189	10200	10180	10184	10162	10151	10155	10181	10175
MAX	10168	10170	10176	10151	10167	10186	10208	10211	10190	10190	10175	10159	10176	10211	10211
DATE	10/01	28/02	07/03	24/04	29/05	29/06	31/07	07/08	30/09	01/10	17/11	18/12	07/03	07/08	07/08
YR	1978	1979	1978	1979	1978	1977	1980	1977	1977	1977	1977	1978	1978	1977	1977
MEAN	10094	10099	10093	10105	10127	10137	10142	10144	10139	10136	10120	10102	10103	10138	10121
S.D.	32	30	30	24	21	23	24	27	24	25	24	27	29	25	32

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J83000 AITUTAKI AERO COOK IS LAT 18 50S LONG 159 49W HT 5M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	279	270	279	1632	1656	3288
DATE	27/01	25/02	23/03	20/04	15/05	06/06	10/07	06/08	05/09	25/10	30/11	06/12	25/02	15/05	25/02
YR	1980	1978	1972	1979	1972	1972	1978	1979	1972	1975	1974	1976	1978	1972	1978
MIN	9990	9737	10011	10055	10064	10076	10073	10086	10091	10073	10041	10013	9737	10064	9737
2.5	10028	10034	10059	10073	10086	10093	10092	10105	10107	10100	10075	10035	10045	10098	10060
5	10040	10051	10070	10082	10093	10103	10104	10113	10115	10112	10085	10047	10060	10105	10078
20	10081	10090	10095	10102	10115	10125	10125	10133	10141	10126	10107	10090	10094	10126	10106
40	10102	10109	10110	10113	10127	10137	10139	10149	10152	10142	10123	10106	10110	10140	10124
50	10112	10116	10114	10118	10131	10143	10145	10153	10156	10146	10129	10111	10117	10146	10131
60	10118	10122	10122	10123	10137	10148	10150	10159	10160	10152	10133	10119	10123	10152	10138
80	10132	10139	10132	10132	10149	10160	10164	10170	10169	10166	10147	10133	10135	10165	10154
95	10145	10153	10146	10146	10169	10177	10184	10186	10184	10183	10163	10154	10152	10181	10174
97.5	10152	10155	10156	10149	10177	10183	10191	10195	10190	10190	10168	10164	10159	10189	10181
MAX	10163	10161	10190	10183	10190	10191	10213	10211	10197	10202	10175	10177	10190	10213	10213
DATE	18/01	27/02	07/03	28/04	26/05	20/06	16/07	08/08	15/09	10/10	17/11	25/12	07/03	16/07	16/07
YR	1974	1979	1978	1978	1976	1974	1974	1977	1972	1972	1977	1975	1978	1974	1974
MEAN	10105	10110	10113	10116	10132	10141	10145	10152	10154	10146	10126	10109	10113	10145	10129
S.D.	31	39	23	19	22	22	24	22	19	22	24	30	29	23	31

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J84300 RAROTONGA AIRPORT LAT 21 11S LONG 159 48W HT 7M

DATA PERIOD 12 1970 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	310	283	310	300	310	300	310	310	300	310	300	341	1844	1840	3684
DATE	22/01	25/02	24/03	20/04	15/05	06/06	10/07	30/08	07/09	27/10	30/11	11/12	25/02	10/07	25/02
YR	1971	1978	1972	1979	1972	1972	1978	1977	1977	1980	1974	1976	1978	1978	1978
MIN	10009	9895	10013	10036	10060	10056	10049	10083	10083	10075	10040	9996	9895	10049	9895
2.5	10029	10047	10059	10067	10086	10093	10082	10101	10101	10099	10082	10034	10043	10095	10062
5	10038	10065	10072	10081	10094	10107	10100	10111	10112	10111	10092	10051	10065	10105	10078
20	10080	10093	10098	10107	10119	10128	10130	10137	10144	10133	10110	10094	10097	10130	10110
40	10103	10110	10118	10119	10134	10144	10145	10156	10160	10149	10127	10109	10115	10147	10129
50	10112	10120	10122	10125	10140	10151	10151	10163	10167	10155	10134	10115	10121	10154	10137
60	10122	10127	10129	10130	10145	10159	10158	10171	10171	10161	10142	10122	10129	10161	10145
80	10139	10140	10141	10140	10158	10174	10177	10183	10184	10177	10159	10142	10144	10178	10165
95	10154	10157	10155	10151	10181	10193	10198	10201	10204	10197	10172	10158	10160	10198	10190
97.5	10159	10159	10162	10154	10195	10200	10207	10212	10213	10207	10178	10166	10167	10204	10198
MAX	10171	10169	10197	10167	10209	10209	10232	10239	10221	10228	10193	10176	10197	10239	10239
DATE	18/01	07/02	07/03	24/04	29/05	28/06	16/07	08/08	03/09	10/10	17/11	13/12	07/03	08/08	08/08
YR	1974	1979	1978	1979	1974	1977	1974	1977	1971	1972	1977	1973	1978	1977	1977
MEAN	10108	10115	10119	10121	10139	10150	10151	10161	10163	10155	10133	10114	10118	10153	10136
S.D.	35	31	27	22	25	27	30	27	26	26	26	31	30	28	34

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J96000 PITCAIRN IS LAT 25 4S LONG 130 6W HT 264M

DATA PERIOD 1 1972 TO 12 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	244	225	244	236	251	237	245	245	239	250	234	241	1424	1467	2891
DATE	24/01	08/02	20/03	07/04	05/05	07/06	30/07	26/08	13/09	30/10	06/11	13/12	13/12	30/10	30/10
YR	1975	1980	1977	1980	1979	1972	1972	1979	1976	1976	1979	1976	1976	1976	1976
MIN	10068	10073	10076	10037	10053	10047	10018	10054	10067	9888	10060	10025	10025	9888	9888
2.5	10085	10100	10109	10095	10089	10077	10096	10085	10092	10075	10092	10089	10095	10086	10090
5	10099	10118	10117	10110	10104	10090	10107	10096	10106	10108	10114	10112	10113	10104	10107
20	10135	10150	10156	10136	10144	10140	10144	10151	10147	10159	10149	10150	10147	10147	10147
40	10162	10176	10173	10159	10171	10180	10169	10177	10182	10189	10171	10172	10169	10177	10172
50	10174	10186	10182	10169	10180	10192	10182	10190	10193	10198	10178	10178	10177	10189	10182
60	10185	10194	10188	10176	10189	10204	10196	10208	10209	10204	10186	10187	10186	10201	10192
80	10205	10205	10205	10189	10210	10224	10228	10234	10236	10223	10208	10206	10203	10224	10214
95	10230	10225	10221	10206	10224	10238	10258	10266	10259	10251	10231	10227	10225	10252	10240
97.5	10235	10236	10231	10213	10236	10248	10272	10274	10269	10261	10235	10231	10232	10263	10253
MAX	10243	10249	10243	10225	10248	10274	10299	10288	10284	10275	10257	10245	10257	10299	10299
DATE	14/01	13/02	26/03	10/04	12/05	19/06	27/07	15/08	09/09	19/10	27/11	28/12	27/11	27/07	27/07
YR	1973	1976	1974	1974	1980	1973	1975	1975	1975	1975	1973	1975	1973	1975	1975
MEAN	10170	10179	10178	10163	10175	10182	10183	10188	10190	10186	10177	10175	10174	10184	10179
S.D.	39	34	30	31	38	47	47	50	46	57	35	36	35	48	42

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION K94400 CAMPBELL IS LAT 52 33S LONG 169 9E HT 15M

DATA PERIOD 11 1970 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	310	283	310	300	310	300	310	310	300	310	330	341	1874	1840	3714
DATE	28/01	15/02	16/03	02/04	23/05	24/06	21/07	01/08	11/09	24/10	14/11	02/12	28/01	23/05	23/05
YR	1976	1979	1980	1975	1975	1974	1976	1975	1980	1977	1978	1979	1976	1975	1975
MIN	9699	9739	9708	9706	9645	9767	9693	9738	9697	9662	9722	9720	9699	9645	9645
2.5	9808	9876	9823	9814	9773	9828	9797	9868	9766	9770	9819	9840	9824	9801	9812
5	9858	9893	9874	9844	9841	9869	9846	9903	9804	9827	9845	9878	9861	9846	9856
20	9948	9980	9988	9964	9942	9965	9949	9981	9915	9928	9921	9959	9959	9943	9950
40	10021	10045	10059	10038	10016	10052	10049	10044	9974	9999	10008	10012	10029	10023	10026
50	10046	10081	10082	10068	10051	10084	10089	10071	10011	10025	10043	10039	10059	10054	10056
60	10081	10105	10109	10100	10080	10112	10112	10109	10048	10049	10069	10062	10087	10086	10087
80	10146	10160	10173	10161	10149	10172	10196	10180	10126	10104	10130	10113	10146	10155	10150
95	10205	10245	10235	10222	10220	10239	10278	10267	10223	10186	10195	10182	10216	10240	10226
97.5	10224	10258	10256	10251	10266	10267	10314	10292	10243	10207	10215	10201	10241	10274	10258
MAX	10278	10339	10300	10349	10346	10351	10358	10333	10295	10321	10284	10259	10349	10358	10358
DATE	14/01	14/02	19/03	16/04	24/05	03/06	21/07	18/08	03/09	04/10	01/11	30/12	16/04	21/07	21/07
YR	1971	1980	1974	1974	1971	1974	1971	1971	1978	1976	1976	1973	1974	1971	1971
MEAN	10044	10072	10076	10059	10043	10070	10073	10078	10015	10015	10028	10034	10051	10049	10050
S.D.	108	106	107	116	120	115	131	111	123	109	111	93	108	121	115

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION J99700 RAOUL IS LAT 29 15S LONG 177 55W HT 38M

DATA PERIOD 11 1970 TO 10 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	310	283	310	300	310	300	310	310	300	310	300	310	1813	1840	3653
DATE	23/01	23/02	10/03	20/04	15/05	28/06	07/07	15/08	09/09	01/10	09/11	31/12	31/12	07/07	31/12
YR	1972	1979	1977	1976	1973	1972	1980	1974	1976	1976	1971	1978	1978	1980	1978
MIN	9945	9971	10007	9987	9992	10002	9978	9992	10005	9978	9968	9914	9914	9978	9914
2.5	10017	10035	10040	10051	10030	10028	10025	10034	10045	10056	10052	10033	10040	10037	10039
5	10045	10057	10067	10068	10065	10050	10043	10056	10072	10086	10081	10054	10059	10059	10059
20	10101	10104	10108	10098	10120	10099	10103	10107	10124	10134	10126	10097	10106	10114	10109
40	10128	10133	10143	10139	10152	10148	10142	10141	10166	10162	10158	10125	10135	10153	10142
50	10136	10144	10152	10155	10171	10166	10161	10166	10179	10176	10172	10133	10147	10170	10157
60	10146	10153	10161	10165	10183	10186	10174	10179	10187	10189	10182	10144	10159	10184	10171
80	10171	10174	10190	10192	10212	10219	10209	10219	10212	10217	10204	10171	10184	10215	10200
95	10205	10194	10210	10221	10248	10250	10254	10270	10249	10252	10238	10192	10213	10252	10241
97.5	10216	10199	10218	10227	10258	10260	10268	10283	10265	10265	10247	10201	10225	10265	10253
MAX	10242	10228	10237	10247	10277	10277	10292	10309	10288	10297	10262	10232	10262	10309	10309
DATE	17/01	10/02	09/03	16/04	05/05	19/06	23/07	06/08	05/09	06/10	06/11	02/12	06/11	06/08	06/08
YR	1978	1975	1978	1975	1980	1979	1979	1978	1971	1973	1972	1970	1972	1978	1978
MEAN	10134	10136	10147	10148	10164	10159	10156	10162	10170	10173	10165	10131	10143	10164	10154
S.D.	46	43	45	50	56	62	62	64	54	52	48	44	47	59	54

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION K98600 WAITANGI, CHATHAM IS LAT 43 57S LONG 176 34W HT 44M

DATA PERIOD 12 1970 TO 12 1980
DAILY MEAN OF OBS AT 00-06-12-18NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	310	283	310	300	310	300	310	310	300	310	300	341	1844	1840	3684
DATE	17/01	06/02	16/03	18/04	18/05	16/06	13/07	03/08	08/09	11/10	27/11	14/12	27/11	03/08	03/08
YR	1980	1975	1980	1972	1977	1975	1980	1980	1973	1971	1971	1972	1971	1980	1980
MIN	9823	9842	9842	9846	9771	9791	9788	9741	9800	9788	9808	9826	9808	9741	9741
2.5	9908	9977	9974	9934	9869	9899	9841	9860	9894	9904	9898	9919	9937	9886	9902
5	9957	10016	10009	9957	9925	9934	9907	9908	9905	9951	9951	9950	9968	9922	9940
20	10049	10104	10097	10055	10013	10008	9984	10019	10013	10033	10030	10037	10058	10011	10034
40	10101	10144	10156	10133	10079	10083	10068	10087	10091	10095	10091	10096	10119	10082	10103
50	10121	10160	10179	10156	10108	10112	10098	10116	10119	10119	10121	10115	10144	10112	10130
60	10149	10180	10196	10182	10137	10139	10124	10157	10143	10145	10149	10135	10164	10141	10155
80	10193	10221	10239	10237	10197	10188	10208	10228	10189	10189	10190	10178	10211	10200	10207
95	10261	10278	10293	10289	10260	10273	10309	10314	10270	10261	10247	10233	10271	10281	10277
97.5	10286	10305	10316	10313	10278	10304	10343	10348	10290	10284	10267	10251	10293	10311	10302
MAX	10317	10353	10363	10329	10317	10368	10385	10399	10350	10367	10320	10262	10363	10399	10399
DATE	17/01	17/02	31/03	01/04	21/05	27/06	17/07	07/08	13/09	06/10	05/11	17/12	31/03	07/08	07/08
YR	1971	1971	1974	1974	1977	1979	1973	1978	1975	1980	1972	1971	1974	1978	1978
MEAN	10119	10160	10168	10143	10100	10105	10099	10120	10105	10112	10111	10106	10134	10107	10120
S.D.	90	78	87	101	104	105	126	122	105	94	94	85	93	110	103

PERCENTILES AND EXTREMES OF MSL PRESSURE TENTH MBAR.

STATION L66500 SCOTT BASE,ANTARCTICA LAT 77 51S LONG 166 45E HT 16M

DATA PERIOD 1 1972 TO 11 1980
DAILY OBS AT 0900NZST

PERCENTILE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WARM NOV-APR	COOL MAY-OCT	YEAR
OBS	279	255	279	270	279	270	279	279	270	279	270	248	1601	1656	3257
DATE	31/01	10/02	13/03	09/04	11/05	11/06	06/07	21/08	22/09	20/10	08/11	29/12	08/11	20/10	20/10
YR	1975	1974	1979	1975	1978	1980	1976	1975	1974	1973	1977	1977	1977	1973	1973
MIN	9760	9689	9703	9714	9596	9635	9632	9545	9567	9483	9556	9746	9556	9483	9483
2.5	9849	9753	9761	9747	9758	9726	9699	9681	9665	9633	9699	9799	9758	9687	9708
5	9870	9787	9783	9768	9777	9758	9753	9728	9707	9669	9751	9820	9786	9717	9747
20	9914	9865	9845	9836	9853	9844	9834	9831	9778	9745	9824	9879	9859	9804	9831
40	9947	9905	9890	9901	9909	9910	9904	9888	9830	9798	9871	9928	9908	9872	9891
50	9962	9926	9905	9922	9951	9942	9936	9916	9851	9822	9896	9952	9930	9899	9916
60	9979	9948	9931	9948	9978	9969	9971	9938	9877	9856	9921	9979	9952	9931	9944
80	10029	9979	9978	10011	10034	10035	10033	9987	9948	9904	9978	10023	10003	9996	10000
95	10095	10039	10041	10099	10093	10133	10111	10103	10059	9976	10048	10110	10081	10092	10086
97.5	10117	10065	10059	10145	10108	10168	10148	10178	10092	9993	10082	10122	10100	10125	10114
MAX	10138	10116	10135	10204	10155	10252	10236	10392	10191	10089	10144	10229	10229	10392	10392
DATE	19/01	14/02	23/03	26/04	07/05	09/06	13/07	09/08	11/09	28/10	07/11	16/12	16/12	09/08	09/08
YR	1976	1978	1972	1977	1973	1972	1978	1974	1980	1977	1980	1976	1976	1974	1974
MEAN	9971	9922	9912	9927	9941	9941	9934	9912	9861	9824	9896	9956	9931	9902	9916
S.D.	68	74	77	100	98	112	113	115	106	93	92	86	87	115	103

Appendix 1: Observing hours at the stations

Station Number and Name		Hours of Observations				
		NZST				Local
		0000	0600	1200	1800	0900
A42461	Cape Reinga	✓	✓	✓	✓	
A53021	Kaitaia Airport	✓	✓	✓	✓	
A54733	Whangarei Airport					✓
A55911	Mokohinau	✓	✓	✓	✓	
A64282	Leigh					✓
A64761	Whenuapai	✓	✓	✓	✓	
A64878	Auckland City	✓	✓	✓	✓	
B76621	Tauranga Airport	✓	✓		✓	
B86131	Rotorua Airport	✓	✓	✓	✓	
B86611	Wairakei Power Station					✓
C74082	Auckland Airport	✓	✓	✓	✓	
C75832	Hamilton Airport					✓
C94011	New Plymouth Airport	✓	✓	✓	✓	
D05964	Waingawa					✓
D06921	Castlepoint					✓
D15631	Cape Palliser					✓
D97381	Portland Island					✓
D78751	East Cape		✓		✓	
D87692	Gisborne Airport	✓	✓	✓	✓	
D96481	Napier Airport	✓	✓			
E04911	Paraparaumu Airport	✓	✓	✓	✓	
E05231	Ohakea	✓	✓	✓	✓	
E14272	Kelburn	✓	✓	✓	✓	
E14387	Wellington Airport	✓	✓	✓	✓	

Station Number and Name		Hours of Observations				
		NZST				Local
		0000	0600	1200	1800	0900
E93271	Cape Egmont					✓
F03501	Farewell Spit	✓	✓		✓	
F11761	Westport Harbour	✓	✓	✓	✓	
F20793	Hokitika Airport	✓	✓	✓	✓	
F39801	Haast		✓			
F47691	Milford Sound					✓
F66161	Puysegur Point	✓	✓	✓	✓	
G04601	Stephens Island					✓
G13222	Nelson Airport	✓	✓	✓	✓	
G13581	Blenheim Airport					✓
G14721	Cape Campbell		✓	✓	✓	
G23471	Kaikoura	✓	✓	✓	✓	
H31352	Lake Coleridge					✓
H32451	Christchurch Airport	✓	✓	✓	✓	
H41323	Timaru Airport		✓	✓	✓	
H41422	Timaru Harbour	✓	✓	✓	✓	
I41901	Oamaru Airport					✓
I50771	Taiaroa Head	✓	✓	✓	✓	
I50921	Dunedin Airport	✓	✓	✓	✓	
I58074	Queenstown Airport					✓
I59234	Alexandra					✓
I68433	Invercargill Airport	✓	✓	✓	✓	
I69841	Nugget Point					✓

Station Number and Name		Hours of Observations				
		NZST				Local
		0000	0600	1200	1800	
J49000	Christmas Isl.,Line Islands					0800
J61000	Tarawa, Kiribati					0900
J62900	Arorae, Kiribati					0900
J63100	Nanumea Isl., Tuvalu					0600
J64300	Funafuti, Tuvalu					0900
J68000	Nandi Airport, Fiji	✓	✓	✓	✓	
J683	Nausori Airport, Fiji	✓	✓	✓	✓	
J76200	Apia, Western Samoa					0900
J80000	Penrhyn, Cook Islands					0800
J81100	Pukapuka, Cook Islands					0800
J82200	Alofi, Niue Island					0800
J83000	Aitutaki Aero. Cook Islands					0800
J84300	Rarotonga Airport, Cook Islands	✓	✓	✓	✓	
J96000	Pitcairn Island					0900
J99700	Raoul Island	✓	✓	✓	✓	
K94400	Campbell Island	✓	✓	✓	✓	
K98600	Waitangi, Chatham Islands	✓	✓	✓	✓	
L66500	Scott Base, Antarctica					0900

Appendix 2: Alphabetical list of stations

Station Name	Index
Aitutaki Aero, Cook Is	J 83000
Alexandra	I 59234
Alofi, Niue I.	J 82200
Apia, Western Samoa	J 76200
Arorae, Kiribati	J 62900
Auckland Airport	C 74082
Auckland City	A 64878
Blenheim Airport	G 13581
Campbell I.	K 94400
Cape Campbell	G 14721
Cape Egmont	E 93271
Cape Palliser	D 15631
Cape Reinga	A 42461
Castlepoint	D 06921
Christchurch Airport	H 32451
Christmas I, Line Is.	J 49000
Dunedin Airport	I 50921
East Cape	D 78751
Farewell Spit	F 03501
Funafuti, Tuvalu	J 64300
Gisborne Airport	D 87692
Haast	F 39801
Hamilton Airport	C 75832
Hokitika Airport	F 20793
Invercargill Airport	I 68433
Kaikoura	G 23471
Kaitaia Airport	A 53021
Kelburn	E 14272
Lake Coleridge	H 31352
Leigh	A 64282
Milford Sound	F 47691
Mokohinau	A 55911
Nandi Airport, Fiji	J 68000
Nanumea Island, Tuvalu	J 63100
Napier Airport	D 96481
Nausori Airport, Fiji	J 68300
Nelson Airport	G 13222
New Plymouth Airport	C 94011
Nugget Point	I 69841
Oamaru Airport	I 41901
Ohakea	E 05231
Paraparaumu Airport	E 04911
Penrhyn, Cook Is.	J 80000
Pitcairn I.	J 96000
Portland I.	D 97381
Pukapuka I. Cook Is	J 81100
Puysegur Point	F 66161
Queenstown Airport	I 58074
Raoul I.	J 99700
Rarotonga Airport, Cook Is	J 84300
Rotorua Airport	B 86131
Scott Base, Antarctica	L 66500
Stephens I.	G 04601
Taiaroa Head	I 50771
Tarawa, Kiribati	J 62900
Tauranga Airport	B 76621
Timaru Airport	H 41323
Timaru Harbour	H 41422
Waingawa	D 05964
Wairakei Power Station	B 86611
Waitangi, Chatham Is.	K 98600
Wellington Airport	E 14387
Westport Harbour	F 11761
Whangarei Airport	A 54733
Whenuapai	A 64761