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ROYAL OBSERVATORY, HONG KONG
TECHNICAL NOTE (LOCAL) NO. 22

**EXTREME TEMPERATURES
IN
HONG KONG**

BY

P. PETERSON

SEPTEMBER 1981

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SUMMARY

This note is intended to present some facts about local temperatures that will be of interest to prospective visitors and useful to people planning new industries or enterprises here in Hong Kong. Part I deals with high temperatures with emphasis on their effects on human comfort and the meteorological situations in which they occur. Part II concerns low temperatures and the meteorological conditions associated with or preceding the occurrence of frost in Hong Kong.

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Part I - HIGH TEMPERATURES

1. Introduction

Although high temperatures have a great effect on people, they also have importance in the design of projects like cooling towers, air conditioning systems, power cables and railway lines. Temperature and humidity together have a bearing on corrosion problems and the clothing industry.

The highest temperature recorded at the Royal Observatory since 1884 was 36.1°C around 2.30 p.m. on 19 August 1900. This is not very high by world standards as is shown by the temperatures reported in other parts of the world given in Table VI (Ref. 1, 2, 3 and 4).

The twenty highest temperatures recorded at the Royal Observatory since 1884 are listed in Table II together with other meteorological data. Fifteen of these occasions were associated with tropical cyclones to the east or southeast of Hong Kong. Fig. I shows the positions of these tropical cyclones at 0200 H.K.T. These tropical cyclones were grouped around the Luzon Straits where they would just begin to cause northerly or westerly offshore winds together with subsidence and fine weather in Hong Kong.

The hottest days also tended to follow dry spells in which the air temperatures had gradually increased. For example, May 1963 was the driest May on record with only 6.0 mm of rainfall. On 31 May the temperature reached 35.5°C and on 1 June it reached 35.6°C . The length of the dry spells and the amount of rain recorded in each spell is also given in Table II.

Forecasters have often observed that the hottest weather in Hong Kong often occurs on the day before a cold front or trough arrives from the north. Such an approaching trough could only be identified on two of the ten hottest days but three of them occurred when no observations were available from China. Table I lists the extreme temperatures that can be expected to occur at the Royal Observatory with various return periods.

2. A Discomfort Index

Evaporative cooling of the human body due to sweating decreases as the humidity rises or as ventilation is reduced. Discomfort is felt when the body is unable to lose heat as fast as it is gained by solar radiation, metabolism and by heat exchange with the surrounding air. Human comfort (or discomfort) is therefore affected by humidity, wind speed and radiation as well as by temperature. Figs. II and III show the normal variations of temperature and humidity based on mean values.

Evaporative cooling ceases altogether when the wet-bulb temperature rises above the temperature of the body. Fortunately the wet-bulb temperature of the air is nearly always lower than the surface temperature of the sea or other large area of water which originally provided the moisture. The relative humidity falls as the difference between the wet bulb temperature and the dry bulb temperature increases so that on very hot days the relative humidity falls as the temperature rises. The highest wet-bulb temperature recorded at the Royal Observatory in post-war years was 29.7°C on 24 August 1961 when the dry-bulb temperature was 33.4°C and the dew-point 28.3°C . It is interesting that the highest Waglan Island sea temperature 30.2°C on 10 July 1965 (comparison with earlier and later readings show that the 31.7°C reported on 22 August 1949 was obviously in error) was just above the highest wet-bulb temperature. Wet-bulb temperatures can be used as a guide to human discomfort although there are a variety of other discomfort indices.

At one time the U.S. Weather Bureau (Ref. 5) used a temperature humidity index, 'THI' given by the formula :

$$\text{THI} = 4/10 (T_{\text{Dry}} + T_{\text{Wet}}) + 15 \quad (\text{Temperatures in degrees } F)$$

when the THI = 70, 10% of the population are uncomfortable
when the THI = 75, 50% of the population are uncomfortable
when the THI = 79, all the population are uncomfortable

At 1600 h on 24 August 1961 (on the occasion referred to above) the THI was 85.9, but this is not quite as high as on five of the ten hottest days given in Table II.

3. Radiant Heat

The effect of radiation is illustrated by the very high temperatures that can be recorded in direct sunshine. The temperatures of surfaces in the sun depend on the balance of incoming radiant heat against heat losses to the surrounding air and to a lesser extent by conduction into the ground. Over large areas of tarmac the hot air rises and cooler air moves in slowly from the sides. However, the air from the sides is heated as it moves inwards and very high temperatures can be attained. On 10 July 1978, an attempt to measure the temperature in the tarmac at the down wind end of the carpark at King's Park was frustrated when the mercury rose to 67°C and threatened to burst the maximum thermometer. Smaller areas of concrete and tarmac are better ventilated and measurements were made routinely in 1 metre square blocks on the Observatory lawn. The highest temperatures recorded were 58.9°C in tarmac and 50.7°C in concrete on 9 July 1979. Between 1884 and 1912 the Royal Observatory made readings with a "black bulb in vacuo". This instrument is not precise as its readings depend on its design and physical construction, but nevertheless temperatures reached a record 73°C (164°F) in October 1890.

After 1958 solar radiation was measured with a bimetallic actinograph and after 1968 with a thermo-electric pyranometer. These instruments show that the total solar radiation on a fine summer day may reach about 36 MJ m⁻² (Ref. 6). Approximately 12% of the radiation occurs in the hottest hour of the day when the radiation is equivalent to more than 1.1 kilowatts per square meter.

If no heat were lost 36 MJ m⁻² is enough to evaporate nearly 19 mm of water, but in practical evaporation pans some of the radiation is reflected

and some is used to heat the water. The temperature of the water in a United States Weather Bureau Class 'A' evaporation pan at Ting Kok reached a record of 45.5°C on 17 June 1967, but the evaporation was only 6.9 mm on that day.

King's Park is more exposed and there is greater airflow over the pans than at Ting Kok and the highest pan temperature at King's Park was 39.6°C on 3 August 1969.

4. Trends of Temperature

Table IV shows the ten-year mean temperature both for the Royal Observatory and for the Macau Observatory (Ref. 8). The Macau Observatory has not been appreciably affected by building development and although in 1966 it was moved to a new site 8 metres lower in elevation no significant trend in temperatures is discernible. There have been a large number of tall buildings built around the Royal Observatory and there has been a marked decrease in wind speeds. Table V shows that the five-year running mean has decreased from around 8.7 knots to 5.7 knots in thirty years whereas the winds measured by balloon at the 900 mbar level have not changed significantly. Table VII also shows that sea temperatures recorded at Waglan Island have not altered appreciably. Since observations began in 1884 the mean maximum air temperatures at the Royal Observatory have increased by about $1\frac{1}{2}^{\circ}\text{C}$ and the mean minimum temperatures by about $\frac{3}{4}^{\circ}\text{C}$. The increase in maximum temperatures is probably mostly due to the decrease in ventilation. The increase in minimum temperatures is due to a combination of factors including artificial heating from industry and air-conditioners together with radiation effects. Buildings are at a much higher radiative temperature than the sky, so that as buildings occupy a larger solid angle and the sky a smaller one; so the loss of heat by radiation is reduced.

Part II - LOW TEMPERATURES AND FROST

1. Introduction

Buildings in Hong Kong were generally designed to be well ventilated and cool in summer and are therefore not easily heated in winter. The coldest weather in Hong Kong generally arrives quite suddenly without allowing time for the population to become acclimatized. The effects of the cold are often enhanced by strong winds and very low humidities which increase evaporative heat loss.

The lowest air temperature recorded at the Royal Observatory was 0°C on 18 January, 1893. On this occasion there were icicles hanging from the rigging of sailing ships in the harbour and considerable suffering among the population of Hong Kong (Ref. 7). Macau Observatory is more exposed to the influence of the continent and, although there are no records for 1893, Macau Observatory recorded a temperature of -1.8°C in January 1948 (Ref. 8). The lowest dew-point recorded at the Royal Observatory in recent years was -13.9°C on 14 January 1963. This occurred with a minimum temperature of 8.7°C and relative humidity of 15%. Lower temperatures have been recorded quite often at other sites on high ground and in the northern part of the New Territories. The lowest reliable sea temperature recorded at Waglan Island was 13.1°C on 21 February 1968. An anomalous report of 10.0°C on 9 February 1948 is almost certainly in error.

Some extreme temperatures in other cities are listed in Table VI. These are the lowest that could be found in references 1, 2, 3 and 4 but may not be absolute records.

2. Frost and Freezing Phenomena

There are minor differences in the definitions of freezing phenomena

in different countries (Ref. 9, 10, 11 and 12). In the U.K. 'Ground Frost' is said to occur whenever the grass minimum temperature falls below 0°C. This is quite common in Hong Kong and is often associated with clear ice called glaze or verglas. When a typical cold front passes Hong Kong, there is often a thick layer of relatively warm cloud and light rain which freezes soon after contact with the ground. Blades of grass sometimes become coated with cylinders of ice rather like human fingers.

Rime is a grainy opaque deposit caused by the freezing of fog (or cloud) droplets more or less separated by trapped air and is also quite common particularly on high ground. It makes the windward sides of hills appear white and is often reported as 'frost'.

Hoar frost is a fluffy, feathery deposit formed by direct sublimation of water vapour onto cold surfaces. It is only likely to form on clear almost calm nights when the grass minimum temperature falls below freezing and also below the dew-point due to radiation cooling (Ref. 9, 10 and 11). Table VII shows that the humidity was low and the dew-point well below the grass minimum temperature on the majority of cloudless nights so that genuine hoar frost is therefore unlikely to have occurred very often.

All these phenomena are generally local and short-lived and there must be many occasions when they are not classified correctly or not reported at all. To simplify discussions the term 'frost' in Table VII refers to any of these phenomena that was reported but excludes ground frost. Table VIII lists all temperatures reported below freezing on occasions not included in Table VII.

Most of the reports of frost listed in Table VII have been made either because of damage to flowers, fruit, vegetables or pond fish or because of somebody's personal interest. Several reports originate from newspapers and do not specify the date of the frost. Also there appear to have been occasions

particularly at weekends when some minimum thermometers were left for 48 hours and the date of the frost cannot subsequently be determined.

3. Local Meteorological Conditions on Frost Occasions

Weather conditions at the Observatory vary widely on occasions of frost. For example, of the 33 frost reports in Table VII, fourteen were cloudy or overcast and nineteen were almost cloudless. There was rain on nine but the relative humidity was below 50% on ten.

There appear to be two different meteorological situations associated with frost, the windy situation where cooling is caused mainly by advection and the almost calm situation where cooling is mostly caused by radiation. In a typical advective situation cold air in depth has travelled south across China underneath a thick overcast and widespread rain for several days. There has been very little solar heating and northerlies have been blowing for long enough to cool the terrain. In Hong Kong there are fresh or strong northerly winds, thick cloud and sometimes rain. Often the screen minimum temperature is lower than the grass minimum temperature and frost first develops on high ground together with ice, sleet and freezing rain. Sea-level temperatures do not vary much around Hong Kong (illustrated by Fig. IV).

Cooling in strong winds can be very rapid and ice can become several centimetres thick overnight. It is of interest that provided the wet-bulb temperature is below zero, water can freeze with any air temperature below 4°C by evaporative cooling of the surface. At 4°C the density of water reaches a maximum. If the mass of water is above 4°C then surface cooling by evaporation will cause the surface water to sink and continued mixing will prevent the surface from freezing. An account of ice formation at an air temperature of 3.7°C is given by Cheng (Ref. 13).

Advective cold surge situations are only rarely cold enough to produce frost but when they do, they cause the greatest human discomfort because of the strong winds. Much more often a cold surge just fails to cause frost but on one of the following nights the wind drops, the sky clears and radiation cooling produces ground frost in hollows and sheltered areas in the New Territories. On these occasions the relative humidity is usually quite low at the Royal Observatory where the minimum temperature may be around 10°C . Low-level temperatures will vary quite widely from place to place as the patches of cold air are very shallow (illustrated by Fig. V). Most of the frost reports occurred towards the end of a major northerly surge, generally after at least two days of north or north-northeast winds.

On occasions of greatest radiation cooling the soil is dry and there is very little water vapour in the troposphere. Radiation does not provide rapid cooling and ice is usually thin, but fruit trees and flowers can easily be damaged.

Air reaching the Observatory from the north-northeast will have followed a trajectory across Tolo Harbour and possibly Starling Inlet and will have picked up moisture. This means that the humidity at the Observatory is not necessarily representative of conditions in the northern part of the New Territories.

Tables VII and VIII tends to confirm Cheng's criterion that frost is rare when the R.O. minimum is above 10°C . Table IX shows the frequency of occurrence of minimum temperatures below 7° , 8° and 10°C at the Royal Observatory. Unfortunately since frost probably occurred many times without being reported it is not possible to determine one optimum temperature at which frost warnings should be issued.

4. Meteorological Conditions over China prior to Frost in Hong Kong

During cold outbreaks of the winter monsoon cold air descends as it travels south across China. In classical meteorology it is generally assumed that when air subsides its temperature rises at the dry adiabatic lapse rate. However, as an intense cold surge advances south over China, light rain, falling through the cold air, causes evaporative cooling and in theory the temperature of subsiding cold air can increase at the wet adiabatic lapse rate. In practice the temperature increase is probably intermediate between the two. For example, air over Lake Baikal on 12 December 1975 at the 500 mbar level had a temperature of -42°C . Following trajectories this air could have arrived at the surface near Hong Kong on 14 December 1975. If it had followed the dry adiabatic it would have arrived with a temperature of 9°C and if it had followed a wet adiabatic it would have arrived with a temperature of -1°C . Whereas the recorded minimum temperature on 14 December 1975 at the Royal Observatory was 4°C and the dew-point 2°C . There was widespread rain over China on this occasion.

The meteorological observations over China on the days before frost occasions were examined. The most striking feature was their variability and in order to obtain any usable forecast criteria it was again necessary to divide the frost occasions into two categories. Nine of the frost occasions were associated with widespread (and often heavy) rain over south China whereas on the other twelve there was almost no rain at all.

Table X contains data prior to those frost occasions associated with widespread rain over south China, while Table XI contains the same data prior to frost occasions with little or no rain. It is immediately obvious that on the wet occasions the 850 mbar temperatures at Kweilin and Cheung Sha were much lower than on the dry occasions. Also these temperatures had decreased significantly between D-3, three days before the frost occasion and D-1, one day before it. Canton's surface temperature was remarkably high on the dry occasions but much lower on the wet ones.

On the dry occasions the cold front had passed earlier and the 850 mbar temperatures at Cheung Sha and Kweilin actually showed rises between D-3 and D-1. The inversion heights, which are a measure of the depth of cold dry air, were also appreciably higher on the dry occasions and the 850 mbar wind strengths were decreasing at the time of the frost.

The cold surges that were sufficiently intense to cause 850 mbar temperatures around -8°C at Cheung Sha, or -6°C at Kweilin with northerly winds of 20-40 knots appeared to cause frost in Hong Kong on the following night in spite of the widespread rain. Most of these frost occasions were of the advective type.

The weaker surges, that only caused 850 mbar temperatures of about -1°C at Cheung Sha or $+1^{\circ}\text{C}$ at Kweilin were liable to cause frost in Hong Kong two or three nights later after the skies had cleared and the wind dropped. Most of these frost occasions were of the radiation type.

Although changes in temperature and pressure are quite closely negatively correlated the tables show that the absolute values of surface pressures are too variable to be useful for forecasting frost.

5. Variation of Temperatures around Hong Kong

Table XII lists all the nights when temperatures below 5°C were reported anywhere in Hong Kong. By comparing these temperatures it is possible to get some idea which are the coldest places. Tai Mo Shan is the highest mountain in Hong Kong (958 metres) and the radar station on the top often records the lowest temperatures. However, surges of the winter monsoon usually result in temperature inversions so that the lowest temperatures occur at a slightly lower level. Tate's Cairn is at an altitude of 575 m and it is interesting

that on the average of all these cold nights Tate's Cairn (mean 4.6°C) was colder than Tai Mo Shan (mean 4.8°C) and both were about 6°C colder than the Royal Observatory (mean 10.4°C). Sheung Shui Farm (mean 5.4°C) was only 0.8°C warmer than the top of Tai Mo Shan whereas Ting Kok (mean 8.4°C) was comparatively warm, possibly due to the proximity of Tolo Harbour. Grass minimum temperatures seem to have been between 2° and 3° lower than air temperatures. The difference was less at King's Park than at the Royal Observatory probably because the site there is more exposed to the wind.

6. Forecasting Frost

The following rules are suggested for forecasting frost. Frost is probable somewhere in the New Territories and should be warned if

1. in a wet situation,

there is a very intense northerly surge with widespread rain and the 850 mbar chart shows 20-40 knot northerlies and temperatures of about -8°C at Cheung Sha and -6°C at Kweilin. The Royal Observatory's temperature is expected to fall to 8°C .

2. in a dry situation,

there has been a moderately intense northerly surge and 15-30 knot north or north-northeast winds have been blowing across China under overcast skies for two or three days. The 850 mbar temperatures at Cheung Sha and Kweilin have at some stage been below 0°C . Skies are expected to be clear and the Royal Observatory's temperature is expected to fall to 10°C .

Outgoing radiation on a clear night is of the order of $119 \text{ J m}^{-2} \text{ sec}^{-1}$ (Ref. 14) whereas in Hong Kong incoming solar radiation can reach about $2093 \text{ J m}^{-2} \text{ sec}^{-1}$ on a sunny January day (Ref. 6). This means that solar heating is nearly eighteen times greater than nocturnal cooling and helps to explain why an overcast over China on the previous days appears to be a more useful criterion for forecasting frost than a clear night in Hong Kong.

$$* 1 \text{ J m}^{-2} \text{ sec}^{-1} = 0.001433 \text{ cal cm}^{-2} \text{ min}^{-1}$$

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TABLE I EXTREME TEMPERATURES THAT CAN BE EXPECTED TO
RECUR AT THE ROYAL OBSERVATORY WITH
SPECIFIED RETURN PERIODS

| Return Period (Years) | Maximum Temperature (°C) | Minimum Temperature (°C) |
|-----------------------------|--------------------------------|--------------------------------|
| 2 | 33.7 | 6.3 |
| 5 | 34.4 | 4.7 |
| 10 | 34.9 | 3.7 |
| 20 | 35.4 | 2.7 |
| 50 | 35.9 | 1.4 |
| 100 | 36.4 | 0.4 |
| 200 | 36.8 | -0.5 |
| 500 | 37.4 | -1.8 |
| 1000 | 37.9 | -2.8 |
| 2000 | 38.3 | -3.7 |

TABLE II METEOROLOGICAL CONDITIONS ON THE THIRTEEN HOTTEST DAYS

| Rank | H.K. T. | Date | At the Royal Observatory | | | | | | | | | | Kai Tak Max. °C | Cheung Chau Max. °C | Waglan Island Max. °C | King's Park Max. °C | Location of Any Tropical Cyclone Around 0600 G.M.T. | Cold Front or Trough N. of H.K. |
|------|---------|-------------|--------------------------|---------------------|--------|--------------------------------------|--------------|--------|-----------------------------|-----|----|----------------|-----------------|---------------------|-----------------------|---------------------|---|---------------------------------|
| | | | Max. °C | Preceding Dry Spell | | Near the time of Maximum Temperature | | | | | | Wind Deg. Knot | | | | | | |
| | | | | No. of Days | R/F mm | Wet Bulb Temp. °C | Dew Point °C | R.H. % | Dis-comfort Index of T.H.I. | | | | | | | | | |
| 1 | 14 | 19 Aug 1900 | 36.1 | 23 | 9.1 | 26.4 | 22.7 | 49 | 85.6 | 010 | 14 | 35.8 | 34.0 | 35.5 | T. | 19N 120E | No data | |
| 2 | 14 | 25 Jul 1968 | 35.7 | 14 | 4.7 | 25.5 | 21.1 | 45 | 84.7 | 020 | 6 | 34.8 | 34.0 | 35.5 | T.D. | 17N 113E | No | |
| 3 | 14 | 1 Jun 1963 | 35.6 | 33 | 6.0 | 27.9 | 25.1 | 57 | 86.3 | 230 | 5 | 29.3 | 29.2 | 33.2 | T.S. Polly | 18N 132E | Yes | |
| 4 | 14 | 31 May 1963 | 35.5 | 32 | 6.0 | 27.5 | 24.6 | 57 | 86.0 | 230 | 4 | 31.0 | 30.7 | 30.1 | Low | 16N 130E | Yes | |
| 5 | 12 | 31 Aug 1962 | 35.5 | 19 | 0.4 | 25.5 | 21.7 | 49 | 84.5 | 360 | 14 | 32.6 | 31.8 | 30.1 | T. Wanda | 20N 117E | No | |
| 6 | 12 | 22 Aug 1960 | 35.4 | 6 | 7.4 | 25.4 | 21.1 | 45 | 84.4 | 310 | 10 | 32.3 | 34.9 | 30.1 | T.S. Carmen | 27N 125E | No | |
| 7 | 13 | 18 Aug 1900 | 35.3 | 20 | 9.1 | 25.3 | 21.5 | 49 | 84.2 | 340 | 16 | - | - | - | T. Elaine | 22N 121E | No | |
| 8 | 14 | 5 Sep 1963 | 35.2 | 7 | 2.1 | 29.4 | 27.8 | 71 | 87.1 | 250 | 5 | 34.7 | 35.4 | 33.7 | T. Faye | 20N 119E | No | |
| 9 | 14 | 26 May 1976 | 35.2 | 4 | Nil | 28.3 | 25.8 | 59 | 86.3 | 250 | 4 | 34.0 | 33.8 | 35.0 | S.T.S. Olga | 23N 123E | No | |
| 10 | 14 | 30 May 1963 | 35.1 | 46 | 7.6 | 26.8 | 23.6 | 55 | 85.2 | 220 | 4 | 30.3 | 31.7 | 32.8 | - | - | No | |
| 11 | 15 | 21 May 1963 | 35.0 | 37 | 3.1 | 25.2 | 20.7 | 44 | 83.9 | 180 | 4 | 30.4 | 32.3 | 33.8 | - | - | Yes | |
| 12 | 16 | 10 Jul 1980 | 35.0 | 11 | 24.4 | 29.4 | 27.5 | 67 | 87.0 | 260 | 11 | 35.3 | 33.4 | 35.2 | S.T.S. Ida | 21N 120E | No | |
| 13 | 15 | 29 Aug 1947 | 34.9 | 6 | 11.9 | 28.1 | 25.6 | 60 | 86.0 | 310 | 15 | - | - | - | T. | 24N 118E | No data | |
| 14 | 15 | 28 Aug 1954 | 34.9 | 8 | 8.5 | 27.0 | 23.3 | 51 | 85.2 | 340 | 12 | 32.6 | 33.0 | - | T. Ida | 20N 120E | No data | |

TABLE II (Cont'd)

| Rank | H.K. T. | Date | At the Royal Observatory | | | | | | | | | | King's Park Max. °C | Waglan Island Max. °C | Cheung Chau Max. °C | Kai Tak Max. °C | Location of Any Tropical Cyclone Around 0600 G.M.T. | Cold Front or Trough N. of H.K. |
|------|---------|-------------|--------------------------|-------------|---------------------|--------|-------------------|--------------|--------|-----------------------------|----------------|--------------------------------------|---------------------|-----------------------|---------------------|-----------------|---|---------------------------------|
| | | | Max. °C | No. of Days | Preceding Dry Spell | R/F mm | Wet Bulb Temp. °C | Dew Point °C | R.H. % | Dis-comfort Index of T.H.I. | Wind Deg. Knot | Near the time of Maximum Temperature | | | | | | |
| 15 | 14 | 16 Jul 1958 | 34.9 | 4 | 9.2 | 28.3 | 26.1 | 64 | 86.1 | 250 | 14 | 33.5 | 32.2 | 32.1 | - | T. Betty T. | 19N 120E | No |
| 16 | 14 | 24 Aug 1977 | 34.9 | 17 | 20.0 | 25.8 | 21.9 | 48 | 84.3 | 260 | 1 | 34.2 | 34.1 | 34.6 | 34.1 | Winne | 24N 119E | No |
| 17 | 13 | 22 Jun 1980 | 34.8 | 17 | 3.4 | 27.7 | 25.3 | 61 | 85.6 | 100 | 7 | 33.5 | 35.8 | 32.9 | 35.6 | T.S. Amy | 32N 131E | No |
| 18 | 15 | 15 Aug 1966 | 34.7 | 14 | 7.1 | 27.6 | 25.0 | 59 | 85.5 | 250 | 4 | 35.6 | 33.4 | 33.5 | 33.9 | S.T.S. Susan | - 20N 120E | No |
| 19 | 14 | 9 Sep 1969 | 34.7 | 8 | 5.1 | 25.6 | 21.6 | 47 | 84.0 | 030 | 4 | 34.5 | 33.1 | 33.8 | 33.8 | T.D. | 22N 120E | No |
| 20 | 13 | 23 Jul 1972 | 34.7 | 9 | 12.2 | 29.3 | 27.6 | 69 | 86.7 | 260 | 8 | 36.0 | 35.9 | 33.8 | 34.2 | T. Rita | 24N 124E | No |

TABLE III FREQUENCY OF OCCURRENCE OF TEMPERATURES
 AT THE ROYAL OBSERVATORY ABOVE SPECIFIED
 VALUES : PERIOD 1947-1980

| Max. Temp. Year | MAY | | JUN | | JUL | | AUG | | SEP | |
|-----------------------|------|------|------|------|------|------|------|------|------|------|
| | 32°C | 34°C | 32°C | 34°C | 32°C | 34°C | 32°C | 34°C | 32°C | 34°C |
| 1947 | - | - | 3 | - | 5 | - | 5 | 1 | 2 | - |
| 1948 | 5 | - | 6 | - | 7 | - | 14 | - | 8 | - |
| 1949 | - | - | 5 | - | 14 | - | 6 | - | 4 | - |
| 1950 | - | - | 1 | - | 16 | - | 7 | - | 2 | - |
| 1951 | - | - | 2 | - | 8 | - | 5 | - | 7 | - |
| 1952 | 8 | - | 7 | - | 12 | - | 6 | - | 4 | - |
| 1953 | 1 | - | 7 | - | 21 | - | 17 | 1 | - | - |
| 1954 | 10 | - | 7 | - | 18 | - | 14 | 3 | 7 | 1 |
| 1955 | 3 | - | - | - | 7 | - | 12 | - | 14 | - |
| 1956 | 4 | - | 8 | - | 20 | - | 12 | 2 | 14 | - |
| 1957 | - | - | 6 | - | 13 | - | 11 | 1 | 6 | - |
| 1958 | 4 | - | 8 | - | 13 | 5 | 11 | - | 9 | 1 |
| 1959 | 2 | - | 11 | - | 10 | - | 10 | - | 6 | - |
| 1960 | 2 | - | 4 | - | 18 | 4 | 11 | 2 | 5 | - |
| 1961 | 3 | - | 13 | - | 14 | 1 | 7 | - | 2 | 1 |
| 1962 | 6 | - | 5 | - | 24 | 2 | 24 | 3 | 5 | - |
| 1963 | 17 | 7 | 9 | 1 | 7 | - | 18 | 1 | 15 | 2 |
| 1964 | 4 | - | 5 | - | 15 | - | 11 | - | 3 | - |
| 1965 | - | - | 4 | - | 10 | - | 14 | - | 5 | - |
| 1966 | 2 | - | 4 | - | 10 | - | 19 | 3 | 13 | - |
| 1967 | 12 | 1 | 13 | - | 25 | 2 | 13 | - | 8 | - |
| 1968 | 2 | - | 4 | - | 19 | 3 | 16 | 1 | 6 | - |
| 1969 | 2 | - | 8 | - | 18 | - | 18 | - | 20 | 5 |
| 1970 | 5 | - | 6 | - | 20 | - | 11 | - | 1 | - |
| 1971 | - | - | 11 | - | 11 | - | 12 | - | 9 | - |
| 1972 | 1 | - | 8 | - | 21 | 3 | 7 | - | 10 | - |
| 1973 | 3 | - | 10 | - | 9 | - | 10 | - | 3 | - |
| 1974 | 2 | - | 3 | 1 | 14 | - | 20 | 3 | 3 | - |
| 1975 | - | - | 5 | - | 13 | - | 8 | - | 6 | - |
| 1976 | 6 | 1 | 8 | - | 7 | - | 8 | 1 | 5 | - |
| 1977 | 9 | - | 8 | - | 13 | - | 22 | 1 | 9 | - |
| 1978 | - | - | 15 | - | 23 | 1 | 12 | - | 9 | - |
| 1979 | - | - | 1 | - | 24 | - | 10 | - | 4 | - |
| 1980 | - | - | 16 | 3 | 18 | - | 14 | - | 3 | - |
| Total | 113 | 9 | 231 | 5 | 497 | 21 | 415 | 23 | 227 | 10 |
| Mean | 3.3 | 0.3 | 6.8 | 0.1 | 14.6 | 0.6 | 12.2 | 0.7 | 6.7 | 0.3 |

TABLE IV

LONG TERM TEMPERATURE TRENDS

| Royal Observatory | | | |
|-------------------|----------------------|--------------|----------------------|
| | Mean Max. (°C) | Mean (°C) | Mean Min. (°C) |
| 1884-1893 | 24.4 | 21.8 | 19.9 |
| 1894-1903 | 24.8 | 22.1 | 20.2 |
| 1904-1913 | 24.7 | 22.2 | 20.1 |
| 1914-1923 | 24.9 | 22.3 | 20.3 |
| 1924-1933 | 24.9 | 22.3 | 20.3 |
| 1934-1939 | 25.3 | 22.4 | 20.3 |
| 1947-1950 | 25.3 | 22.4 | 20.3 |
| 1951-1960 | 25.6 | 22.6 | 20.3 |
| 1961-1970 | 25.9 | 23.0 | 20.7 |
| 1971-1980 | 25.9 | 22.9 | 20.8 |

The above increases are significant at the 0.1% level

| Macau Observatory | | |
|-------------------|----------------------|----------------------|
| | Mean Max. (°C) | Mean Min. (°C) |
| 1902-1910 | 24.7 | 19.6 |
| 1911-1920 | 24.9 | 19.6 |
| 1921-1930 | 26.0 | 19.5 |
| 1931-1940 | 25.8 | 19.8 |
| 1941-1950 | 25.9 | 18.0 |
| 1951-1960 | 25.8 | 19.7 |
| 1961-1970 | 25.3 | 20.0 |
| 1971-1980 | 24.8 | 20.0 |

There is no significant trend in Macau's temperatures

TABLE V FIVE YEAR RUNNING MEANS

| <u>Waglan Island Afternoon Sea Temperatures</u> | <u>Royal Observatory Mean Wind Speed</u> | <u>900 mbar Wind</u> |
|---|--|----------------------|
| °C | knots | knots |
| 1948-52 | 8.7 | - |
| 1949-53 | 8.9 | - |
| 1950-54 | 9.1 | 13.4 |
| 1951-55 | 9.2 | 13.2 |
| 1952-56 | 9.2 | 12.9 |
| 1953-57 | 9.3 | 12.9 |
| 1954-58 | 9.1 | 12.7 |
| 1955-59 | 8.7 | 12.6 |
| 1956-60 | 8.4 | 12.6 |
| 1957-61 | 8.2 | 12.9 |
| 1958-62 | 7.8 | 12.7 |
| 1959-63 | 7.1 | 12.5 |
| 1960-64 | 6.9 | 12.7 |
| 1961-65 | 6.5 | 12.7 |
| 1962-66 | 5.9 | 12.5 |
| 1963-67 | 5.5 | 12.7 |
| 1964-68 | 5.7 | 12.7 |
| 1965-69 | 5.6 | 12.3 |
| 1966-70 | 5.6 | 12.4 |
| 1967-71 | 5.7 | 12.6 |
| 1968-72 | 5.7 | 12.7 |
| 1969-73 | 5.8 | 13.4 |
| 1970-74 | 5.8 | 14.0 |
| 1971-75 | 5.7 | 14.0 |
| 1972-76 | 5.7 | 13.8 |
| 1973-77 | 5.4 | 13.6 |
| 1974-78 | 5.2 | 12.1 |
| 1975-79 | 4.9 | 12.5 |
| 1976-80 | 4.7 | 12.8 |

LOW TEMPERATURES (°C)

| | | | |
|---|-------|-----------|-------|
| VOSTOK (ANTARCTICA) (on Aug. 24, 1960) | -88.3 | CHICAGO | -30.1 |
| AMUNDSEN-SCOTT (SOUTH POLE) | -74.5 | OSLO | -29.4 |
| OIMEKON (U.S.S.R.) | -67.8 | PEKING | -22.8 |
| VERKHUYANSK (U.S.S.R.) | -67.8 | LONDON | -9.5 |
| NORTHICE (GREENLAND) | -66.1 | TOKYO | -8.3 |
| SNAG (YUKON TERRITORY, CANADA) | -62.8 | TAIPEI | -0.2 |
| TANANA (ALASKA) | -60.0 | CANTON | -0.3 |
| ROGERS PASS (U.S.A.) | -56.7 | MACAU | -1.8 |
| IRKUTSK | -50.0 | CALCUTTA | 6.7 |
| ULAN BATOR | -44.4 | SYDNEY | 8.9 |
| LENINGRAD | -37.8 | HAWAII | 11.1 |
| QUEBEC | -36.7 | BANGKOK | 11.1 |
| MOSCOW | -32.8 | RANGOON | 12.8 |
| STOCKHOLM | -32.2 | MANILA | 14.4 |
| | | SINGAPORE | 18.9 |

HIGH TEMPERATURES (°C)

| | | | |
|--|------|---------------------|------|
| *AZIZIA (Tripolitania) (on Sep. 13, 1922) | 57.8 | WASHINGTON | 41.0 |
| DEATH VALLEY (CALIFORNIA) | 57.0 | TORONTO | 41.0 |
| CLONCURRY (QUEENSLAND) | 53.0 | SHANGHAI | 40.0 |
| ABADAN | 51.0 | PARIS | 40.0 |
| NEW DELHI | 46.0 | TAIPEI | 39.0 |
| CALCUTTA | 44.0 | NEW YORK | 39.0 |
| CHUNGKING | 44.0 | MACAU | 38.9 |
| CANBERRA | 43.0 | TOKYO | 38.0 |
| ATHENS | 43.0 | FORT YUKON (ALASKA) | 38.0 |
| LOS ANGELES | 43.0 | CANTON | 38.0 |
| TEHRAN | 43.0 | MANILA | 38.0 |
| PEKING | 43.0 | HAWAII | 37.8 |
| BANGKOK | 41.0 | LONDON | 37.0 |
| RANGOON | 41.0 | BERLIN | 36.0 |
| DARWIN | 41.0 | SINGAPORE | 36.0 |
| | | MOSCOW | 36.0 |

* Ash (Weather, 1966, p.459) questions the reliability of this observation while Eden (Weatherwise, Aug. 1980) cites an unconfirmed report of 152°F (66.7°C) at Antalya, Turkey on 10 July 1977.

TABLE VII REPORTS OF FROST IN HONG KONG

| DATE | LOCATION | R.O. MIN. TEMP. (°C) | R.O. GRASS MIN. TEMP. (°C) | TOTAL RAINFALL AT R.O. FROM MIDNIGHT TO 7 A.M. (mm) | WEATHER CONDITIONS AT 7 A.M. AT R.O. | | | WIND AT WAGLAN ISLAND AT 0800 H.K. T. | | |
|-------------|--|----------------------|----------------------------|---|--------------------------------------|----------------------|----------------|---------------------------------------|---------------|--------|
| | | | | | RELATIVE HUMIDITY (%) | CLOUD AMOUNT (OKTAS) | DEW POINT (°C) | | WIND | |
| | | | | | | | | DIRECTION | SPEED (KNOTS) | |
| 27 JAN 1948 | On a ridge north of Tsuen Wan | 4.3 | NO RECORD | 0.2 | 92 | 8 | 3.9 | N | 3 | - |
| 9 JAN 1949 | Victoria Peak, Fanling | 5.9 | NO RECORD | NIL | 43 | 0 | -5.6 | NNE | 13 | - |
| 10 JAN 1949 | Victoria Peak, Fanling | 6.7 | NO RECORD | NIL | 82 | 7 | 8.3 | ENE | 11 | - |
| 9 JAN 1955 | Fanling | 7.3 | 3.0 | NIL | 54 | 1 | 2.2 | NNW | 7 | N 27 |
| 10 JAN 1955 | Boven Road & Lugard Road in Hong Kong Island | 4.6 | 1.7 | NIL | 34 | 0 | -8.6 | N | 16 | N 32 |
| 11 JAN 1955 | Shek Kong, Happy Valley Race Course | 3.1 | 0.1 | NIL | 30 | 0 | -12.2 | NW | 7 | N 24 |
| 5 JAN 1956 | Mt. Nicholson | 15.3 | 10.6 | NIL | 84 | 7 | 13.1 | E | 14 | ENE 15 |
| 6 JAN 1956 | Mt. Nicholson | 12.2 | 15.3 | TRACE | 95 | 8 | 16.2 | ESE | 11 | NE 10 |
| 7 JAN 1956 | Mt. Nicholson | 6.4 | 8.5 | 2.9 | 79 | 8 | 6.1 | N | 11 | N 28 |
| 8 JAN 1956 | On many hilltops notably Ma On Shan and Tai Mo Shan | 5.7 | 5.1 | TRACE | 51 | 8 | -3.3 | NNE | 9 | N 24 |
| 9 JAN 1956 | High hills | 3.9 | 1.7 | NIL | 52 | 1 | -4.4 | N | 11 | N 15 |
| 11 FEB 1957 | Lantau Peak, Ngong Ping, Route Twisk, Paddy Fields in N.T. | 2.4 | 0.8 | NIL | 62 | 2 | -3.9 | NNE | 9 | N 24 |
| 25 JAN 1964 | Tai Mo Shan, Hilltops around Yuen Long | 9.2 | 10.7 | NIL | 73 | 7 | 6.8 | ENE | 3 | NE 12 |
| 21 FEB 1964 | Kai Shan, near Ping Shan | 7.0 | 8.3 | NIL | 85 | 8 | 6.3 | NNE | 5 | N 12 |
| 16 JAN 1967 | Hilltops in N.T. | 4.6 | 2.3 | NIL | 30 | 1 | -11.6 | NNE | 15 | N 28 |
| 17 JAN 1967 | Sheung Shui | 6.5 | -1.3 | NIL | 41 | 1 | -4.2 | ENE | 1 | N 14 |
| 15 FEB 1968 | Tai Mo Shan | 5.7 | 2.2 | NIL | 65 | 1 | 0.2 | N | 1 | NNW 12 |
| 4 FEB 1969 | Tai Po | 5.1 | 2.2 | TRACE | 73 | 2 | 2.1 | N | 2 | N 19 |
| 5 FEB 1969 | Tai Mo Shan | 4.0 | 1.3 | NIL | 63 | 6 | -2.0 | N | 5 | N 21 |
| 31 JAN 1971 | Tai Mo Shan and Tate's Cairn | 5.5 | 5.3 | 1.3 | 61 | 8 | -0.7 | NNE | 3 | N 18 |
| 9 FEB 1972 | Tai Mo Shan and Tate's Cairn | 3.8 | 2.9 | 1.8 | 79 | 8 | 0.8 | N | 4 | N 26 |
| 26 DEC 1973 | Sheung Shui | 7.0 | 1.0 | NIL | 38 | 0 | -6.1 | NNE | 5 | N 20 |
| 27 DEC 1973 | Sheung Shui | 8.6 | 1.6 | NIL | 46 | 0 | -2.0 | N | 5 | NNE 27 |
| 1 JAN 1974 | Sheung Shui | 11.6 | 5.5 | NIL | 30 | 0 | -4.7 | ENE | 3 | N 16 |
| 2 JAN 1974 | Sheung Shui | 10.8 | 5.0 | NIL | 31 | 0 | -4.0 | NE | 12 | N 2 |
| 3 JAN 1974 | Sheung Shui | 10.9 | 3.0 | NIL | 66 | 0 | 5.1 | NNE | 1 | N 10 |
| 4 JAN 1974 | Sheung Shui | 11.6 | 3.1 | NIL | 51 | 0 | 2.3 | CALM | | N 14 |
| 12 FEB 1974 | Ta Ku Ling and Sheung Shui | 8.7 | 3.3 | NIL | 59 | 1 | 1.4 | NNE | 2 | E 22 |
| 26 FEB 1974 | Peak Police Station and in N.T. | 4.2 | 1.3 | NIL | 43 | 6 | -7.0 | N | 6 | N 23 |
| 14 DEC 1975 | Very widespread throughout N.T. | 4.3 | 4.2 | 4.6 | 91 | 8 | 3.1 | N | 5 | N 36 |
| 15 DEC 1975 | Very widespread throughout N.T. | 5.3 | 4.2 | TRACE | 51 | 7 | -3.7 | N | 4 | N 26 |
| 13 JAN 1976 | Near Tuen Mun | 10.3 | 5.5 | NIL | 67 | 0 | 5.1 | NE | 2 | NNE 8 |
| 14 JAN 1976 | Near Tuen Mun | 11.6 | 5.5 | NIL | 84 | 0 | 9.1 | CALM | | NNE 3 |

TABLE VIII OCCASIONS WHEN A SCREEN TEMPERATURE BELOW 0°C WAS RECORDED ANYWHERE IN HONG KONG BUT NO FROST WAS REPORTED PERIOD 1964 - 1975

| DATE | LOCATION | MIN. TEMP. (°C) | R.O. MIN. TEMP. (°C) | R.O. GRASS MIN. TEMP. (°C) | TOTAL RAINFALL AT R.O. FROM MIDNIGHT TO 7 A.M. (mm) | WEATHER CONDITIONS AT 7 A.M. AT THE ROYAL OBSERVATORY | | | | WIND AT WAGLAN ISLAND AT 0800 H.K. T. | | |
|-------------|--------------------|-----------------|----------------------|----------------------------|---|---|----------------------|----------------|-----------|---------------------------------------|---------------|----|
| | | | | | | RELATIVE HUMIDITY (%) | CLOUD AMOUNT (OKTAS) | DEW POINT (°C) | WIND | | | |
| | | | | | | | | | DIRECTION | | SPEED (KNOTS) | |
| 19 Jan 1970 | Tai Mo Shan Farm | -0.6 | 7.6 | 7.0 | 0.2 | 76 | 7 | 3.7 | NNE | 5 | N | 20 |
| 30 Jan 1971 | Tate's Cairn | -0.3 | 5.6 | 5.6 | 0.2 | 83 | 8 | 3.5 | NNE | 6 | N | 21 |
| 10 Feb 1972 | Tate's Cairn | -0.8 | 5.7 | 2.5 | Nil | 68 | 6 | 0.5 | N | 3 | N | 14 |
| 25 Dec 1973 | R.A.F. Tai Mo Shan | -1.0 | 7.0 | 3.4 | Nil | 35 | 0 | -7.5 | NNE | 13 | N | 23 |
| 8 Feb 1974 | Tate's Cairn | -1.5 | 4.9 | 2.4 | Nil | 61 | 5 | -1.5 | N | 8 | N | 25 |
| | R.A.F. Tai Mo Shan | -3.5 | | | | | | | | | | |
| | Tai Mo Shan Farm | -2.0 | | | | | | | | | | |
| 25 Feb 1974 | R.A.F. Tai Mo Shan | -2.0 | 5.8 | 6.4 | 1.5 | 80 | 8 | 4.4 | NE | 4 | N | 28 |
| | Tai Mo Shan Farm | -0.5 | | | | | | | | | | |
| 27 Feb 1974 | Tai Mo Shan Farm | -2.0 | 6.7 | 2.5 | Nil | 54 | 1 | -1.7 | NNE | 7 | N | 19 |
| 16 Dec 1975 | Tate's Cairn | -0.7 | 4.8 | 3.3 | Nil | 54 | 0 | -3.5 | N | 3 | N | 23 |
| | R.A.F. Tai Mo Shan | -3.0 | | | | | | | | | | |
| 17 Dec 1975 | R.A.F. Tai Mo Shan | -2.0 | 5.7 | 1.3 | Nil | 57 | 2 | -1.5 | N | 5 | N | 19 |
| 29 Dec 1975 | R.A.F. Tai Mo Shan | -1.0 | 7.4 | 6.9 | Nil | 36 | 3 | -6.6 | N | 14 | NNE | 22 |
| 29 Dec 1976 | Tate's Cairn | -0.1 | 5.8 | 5.1 | Trace | 87 | 8 | 4.2 | N | 1 | N | 18 |
| 19 Jan 1978 | R.A.F. Tai Mo Shan | -1.0 | 6.9 | 8.8 | 3.1 | 79 | 8 | 3.8 | NNE | 1 | N | 12 |
| 19 Jan 1978 | R.A.F. Tai Mo Shan | -1.2 | 7.8 | 7.7 | Nil | 58 | 7 | 0.5 | NNE | 1 | NNW | 7 |
| 16 Feb 1978 | R.A.F. Tai Mo Shan | -1.0 | 7.6 | 7.4 | 1.1 | 77 | 8 | 4.0 | NE | 8 | N | 24 |
| 17 Feb 1978 | R.A.F. Tai Mo Shan | -0.6 | 7.8 | 5.5 | Trace | 69 | 4 | 2.8 | N | 2 | N | 23 |
| 1 Feb 1979 | Tate's Cairn | -0.1 | 6.1 | 3.4 | Nil | 34 | 2 | -2.0 | N | 2 | N | 16 |
| 31 Jan 1980 | Tate's Cairn | -0.5 | 6.3 | 6.2 | Nil | 57 | 8 | -0.9 | N | 3 | N | 24 |
| 9 Feb 1980 | R.A.F. Tai Mo Shan | -1.0 | 5.5 | 5.9 | 3.3 | 91 | 8 | 5.1 | N | 1 | N | 20 |

TABLE IX METEOROLOGICAL OBSERVATIONS ON THE DAYS BEFORE HONG KONG FROST OCCASIONS ASSOCIATED WITH WIDESPREAD RAIN OVER CHINA

| Date | 25.1.64 | 21.2.64 | 15.2.68 | 4.2.69 | 31.1.71 | 9.2.72 | 26.2.74 | 14.12.75 | 15.12.75 | MEAN |
|-------------------------------------|----------|---------|---------|--------|---------|--------|---------|----------|----------|--------|
| T. Cairn Macau R.O. Canton | Min. D-1 | --- | 5 | 3 | -0.3 | 1 | 0.4 | 1.1 | -1.8 | 1.2 |
| | Min. D-1 | 8.4 | 8 | 5.7 | 3.5 | 4.2 | 5.3 | 4.2 | 2.4 | 5.3 |
| | Min. D-1 | 9.9 | 8.2 | 9.5 | 5.6 | 6.4 | 5.8 | 6.2 | 4.3 | 7.2 |
| | 06Z D-1 | 11 | 7 | 13 | 6 | 6 | 6 | 5 | 5 | 7.1 |
| Kweilin | 21Z D-2 | --- | --- | 6 | 3 | 5 | 5 | 4 | 2 | 4.6 |
| | 06Z D-1 | --- | 0 | 8 | 1 | 3 | 6 | 0 | 5 | 3.9 |
| | 21Z D-2 | 8 | -1 | --- | -1 | -1 | 0 | 1 | 0 | 1.1 |
| Canton | 06Z D-1 | 1022.1 | 1024.4 | 1016.2 | 1019.6 | 1023.8 | 1022.1 | 1025.9 | 1028.9 | 1023.2 |
| | 21Z D-2 | --- | 1020.3 | --- | 1019.0 | 1024.4 | 1020.6 | 1026.4 | 1029.6 | 1023.5 |
| | 06Z D-1 | --- | 1031.4 | 1020.9 | 1028.8 | 1025.9 | 1027.2 | 1035.4 | 1035.8 | 1029.7 |
| | 21Z D-2 | 1028.2 | 1030.4 | --- | 1025.9 | 1027.8 | 1028.5 | 1032.9 | 1033.6 | 1037.8 |
| Cheung Sha | 12Z D-1 | -4 | -6 | -5 | -9 | -5 | -7 | -9 | -9 | -7.2 |
| | 00Z D-1 | -6 | -8 | -5 | -8 | -7 | -11 | -11 | -10 | -8.3 |
| | 00Z D-2 | -3 | -6 | -6 | -8 | -6 | -7 | -7 | -9 | -5.9 |
| | 00Z D-3 | 0 | *5 | -6 | -4 | -6 | 1 | -9 | -7 | -3.7 |
| Kweilin | 12Z D-1 | -3 | --- | -3 | -8 | -5 | -6 | -9 | -7 | -6.1 |
| | 00Z D-1 | -3 | -5 | -6 | -4 | -6 | -10 | -8 | -9 | -6.3 |
| | 00Z D-2 | 1 | -3 | -3 | -2 | -6 | 0 | -8 | -8 | -3.7 |
| | 00Z D-3 | 7 | 6 | -3 | 1 | -4 | 7 | -6 | -8 | -0.3 |
| Cheung Sha | 12Z D-1 | 060/12 | *040/10 | 030/12 | 020/17 | 010/15 | 030/27 | 030/23 | 010/20 | |
| | 00Z D-1 | 020/06 | *030/27 | 030/15 | 330/07 | 020/20 | 020/15 | 010/23 | 010/23 | |
| | 00Z D-2 | *040/22 | --- | 290/10 | 080/10 | 030/22 | 040/10 | 060/10 | 010/24 | |
| | 00Z D-3 | --- | *150/14 | 040/10 | *010/10 | 030/10 | 250/10 | 030/16 | 060/10 | |
| Kweilin | 12Z D-1 | 070/12 | *350/06 | 040/17 | 010/27 | 020/17 | 010/20 | 030/36 | 010/30 | |
| | 00Z D-1 | 070/20 | --- | 020/23 | *010/08 | 070/15 | 030/27 | 050/40 | 040/40 | |
| | 00Z D-2 | --- | 010/10 | --- | 040/10 | 040/40 | 030/14 | 050/24 | 050/37 | |
| | 00Z D-3 | --- | --- | --- | 350/10 | --- | 110/16 | 050/24 | 050/24 | |
| Base Top | 866 | 960 | --- | 953 | 930 | 960 | 950 | 980 | 962 | 945 |
| | 835 | 877 | --- | 932 | 900 | 863 | 930 | 960 | 925 | 903 |

KING'S PARK INVERSIONS ON DAY-1 (mbar)

* Estimated

TABLE X METEOROLOGICAL OBSERVATIONS ON THE DAYS BEFORE HONG KONG FROST OCCASIONS ASSOCIATED WITH LITTLE OR NO RAIN OVER CHINA

| Date | 16.1.67 | 17.1.67 | 5.2.69 | 26.12.73 | 27.12.73 | 1.1.74 | 2.1.74 | 3.1.74 | 4.1.74 | 12.2.74 | 13.1.76 | 14.1.76 | MEAN |
|--|----------|---------|--------|----------|----------|--------|--------|--------|--------|---------|---------|---------|--------|
| T. Cairn Macau R.O. Canton | Min. D-1 | --- | 0.5 | 1.7 | 1.5 | 5 | 7.6 | 8.1 | 7.6 | 3 | 4.2 | 6 | 4.5 |
| | Min. D-1 | 9.3 | 2.8 | 5.8 | 5.8 | 9 | 9.1 | 9.6 | 9.3 | 6.8 | | | 7.2 |
| | Min. D-1 | 8.3 | 4.6 | 5.1 | 7 | 12.1 | 11.6 | 10.8 | 10.9 | 8.1 | 9 | 10.3 | 8.7 |
| Kweilin | 06Z D-1 | 15 | 7 | 12 | 15 | 19 | 19 | 19 | 20 | 14 | 15 | 18 | 15.3 |
| | 21Z D-2 | 10 | 4 | 2 | 5 | 5 | 8 | 7 | 4 | 5 | 7 | 3 | 5.5 |
| | 06Z D-1 | 9 | 8 | 5 | 9 | 12 | 17 | 18 | 20 | 12 | 14 | 15 | 12.9 |
| | 21Z D-2 | 6 | -1 | 0 | 3 | 2 | 1 | 2 | 3 | 3 | 6 | 2 | 2.3 |
| SURFACE PRESSURES (mbar) | | | | | | | | | | | | | |
| Canton | 06Z D-1 | 1030.3 | 1028.3 | 1025.7 | 1029.5 | 1026.7 | 1022.8 | 1018.9 | 1016.5 | 1025.1 | 1023.7 | 1021.9 | 23.9 |
| | 21Z D-2 | 1028.8 | 1031.9 | 1024.5 | 1030.6 | 1029.5 | 1026.3 | 1021.7 | --- | 1026.5 | 1025.2 | 1024.1 | 26.1 |
| | 06Z D-1 | 1039.0 | 1032.0 | 1033.2 | 1032.0 | 1029.1 | 1025.7 | 1020.9 | 1018.1 | 1028.7 | 1025.9 | 1023.6 | 27.4 |
| | 21Z D-2 | 1035.4 | 1037.0 | 1033.9 | 1036.0 | 1032.6 | 1029.7 | 1025.0 | 1021.0 | 1030.6 | 1028.3 | 1026.4 | 29.7 |
| 850 mbar TEMPERATURES (°C) | | | | | | | | | | | | | |
| Cheung Sha | 12Z D-1 | -9 | -1 | -10 | -1 | 1 | 2 | 2 | 6 | -2 | 3 | 4 | 0.1 |
| | 00Z D-1 | -5 | -5 | -9 | -4 | 1 | 1 | 3 | 3 | -3 | 0 | 4 | -0.8 |
| | 00Z D-2 | -1 | -5 | -8 | -7 | -4 | 3 | 1 | 3 | -7 | -2 | 0 | -1.9 |
| | 00Z D-3 | -1 | -1 | -8 | 3 | -7 | 1 | 3 | 1 | -8 | -3 | -2 | -1.6 |
| Kweilin | 12Z D-1 | -6 | --- | *-9 | 0 | 4 | 6 | 7 | 7 | 1 | 4 | 6 | 2.5 |
| | 00Z D-1 | -5 | --- | *-3 | 1 | 4 | 5 | 6 | 6 | -3 | 2 | 4 | 1.9 |
| | 00Z D-2 | -1 | -5 | -4 | 0 | 1 | 2 | 4 | 4 | -4 | -1 | 2 | 0.4 |
| | 00Z D-3 | 1 | -1 | -2 | 5 | 0 | 2 | 2 | 5 | -4 | 0 | -1 | 0.9 |
| 850 mbar WINDS (deg/knots) | | | | | | | | | | | | | |
| Cheung Sha | 12Z D-1 | 360/32 | 120/10 | 040/27 | 020/11 | 320/01 | 310/20 | 310/10 | 020/10 | 040/20 | 290/07 | 030/10 | 030/10 |
| | 00Z D-1 | --- | 050/12 | 030/32 | 030/12 | 080/10 | 350/16 | 320/10 | 360/07 | --- | 050/07 | 290/06 | 290/06 |
| | 00Z D-2 | 020/10 | --- | 330/07 | 030/27 | 030/13 | 350/23 | 350/17 | 320/10 | 010/13 | 030/14 | 050/07 | 050/07 |
| | 00Z D-3 | 090/13 | 020/10 | 080/10 | 020/20 | 030/27 | 050/16 | 350/23 | 350/17 | 040/10 | 030/22 | 030/14 | 030/14 |
| Kweilin | 12Z D-1 | 010/26 | --- | *020/32 | 050/17 | 100/03 | 350/10 | 330/13 | 040/07 | 020/13 | 360/10 | 150/07 | 150/07 |
| | 00Z D-1 | 050/43 | --- | *020/30 | 090/11 | 130/02 | 350/16 | 360/10 | 010/13 | 060/27 | --- | --- | --- |
| | 00Z D-2 | 360/17 | 050/42 | *010/08 | 050/40 | 090/12 | 060/40 | 350/17 | 360/10 | 050/25 | 060/27 | 270/07 | 270/07 |
| | 00Z D-3 | --- | 360/17 | 040/10 | 040/07 | 050/40 | 060/12 | 060/40 | 350/17 | 090/10 | 050/20 | 060/27 | 060/27 |
| KING'S PARK INVERSIONS ON DAY-1 (mbar) | | | | | | | | | | | | | |
| Base | 835 | 947 | 930 | 915 | 910 | 890 | 800 | 810 | 895 | 760 | 813 | 962 | 872 |
| Top | 774 | 888 | 875 | 850 | 890 | 860 | 765 | 762 | 872 | 730 | 788 | 940 | 833 |

* Estimated

TABLE XI NUMBER OF NIGHTS WITH MINIMUM TEMPERATURE AT THE ROYAL OBSERVATORY BELOW SPECIFIED VALUES

| Year \ Month | January | | | February | | | December | | |
|--------------|---------|-----|-----|----------|-----|-----|----------|-----|-----|
| | 10°C | 8°C | 7°C | 10°C | 8°C | 7°C | 10°C | 8°C | 7°C |
| 1947 | 2 | - | - | 10 | 4 | 2 | 4 | 2 | 2 |
| 1948 | 6 | 5 | 4 | 4 | 1 | - | - | - | - |
| 1949 | 8 | 3 | 2 | 1 | - | - | - | - | - |
| 1950 | - | - | - | 6 | 4 | 3 | 5 | 1 | 1 |
| 1951 | 7 | 4 | 4 | 3 | - | - | 1 | - | - |
| 1952 | 1 | - | - | 1 | 1 | 1 | 7 | 3 | 2 |
| 1953 | 1 | - | - | 2 | - | - | 1 | - | - |
| 1954 | 4 | 2 | 2 | 4 | 1 | - | 3 | 2 | 1 |
| 1955 | 11 | 8 | 6 | 3 | 1 | - | - | - | - |
| 1956 | 10 | 6 | 6 | 2 | - | - | 2 | - | - |
| 1957 | 3 | 1 | - | 8 | 6 | 4 | - | - | - |
| 1958 | 8 | 3 | - | 6 | 1 | - | - | - | - |
| 1959 | 4 | 1 | 1 | - | - | - | - | - | - |
| 1960 | 4 | 1 | - | - | - | - | 4 | - | - |
| 1961 | 6 | 1 | - | 2 | - | - | 1 | - | - |
| 1962 | 12 | 3 | 2 | 1 | - | - | - | - | - |
| 1963 | 8 | 2 | - | - | - | - | - | - | - |
| 1964 | 8 | - | - | 8 | 4 | 1 | 1 | - | - |
| 1965 | - | - | - | - | - | - | 3 | 1 | - |
| 1966 | - | - | - | 2 | 1 | - | 3 | - | - |
| 1967 | 11 | 2 | 2 | 8 | 4 | 1 | 5 | 1 | - |
| 1968 | - | - | - | 15 | 6 | 3 | - | - | - |
| 1969 | 1 | - | - | 8 | 5 | 4 | 1 | - | - |
| 1970 | 6 | 1 | - | - | - | - | - | - | - |
| 1971 | 9 | 3 | 2 | 4 | - | - | 2 | - | - |
| 1972 | 5 | 1 | - | 6 | 4 | 3 | 2 | - | - |
| 1973 | 1 | - | - | - | - | - | 3 | 2 | 2 |
| 1974 | - | - | - | 12 | 7 | 5 | - | - | - |
| 1975 | - | - | - | - | - | - | 12 | 8 | 5 |
| 1976 | 1 | - | - | - | - | - | 4 | 3 | 2 |
| 1977 | 9 | 4 | 2 | 9 | 5 | 2 | - | - | - |
| 1978 | 5 | 2 | 1 | 5 | 3 | - | - | - | - |
| 1979 | 3 | 1 | 1 | 1 | 1 | 1 | - | - | - |
| 1980 | 2 | 2 | 1 | 9 | 6 | 3 | - | - | - |
| Total | 156 | 56 | 36 | 140 | 65 | 33 | 64 | 23 | 15 |
| Mean | 4.6 | 1.6 | 1.1 | 4.1 | 1.9 | 1.0 | 1.9 | 0.7 | 0.4 |

TABLE XII

COMPARISON OF TEMPERATURES ON OCCASIONS WHEN A
MIN. TEMP. OR A GRASS MIN. TEMP. BELOW 5°C
WAS RECORDED ANYWHERE IN HONG KONG
PERIOD 1964-1975

| DATE | MIN. SCREEN TEMP. °C | | | | | | | GRASS MIN. °C | | | | REMARKS |
|----------|----------------------|----------------|-----------------|--------------------------|------------------------|------------------------|-------------|----------------------|----------------|---------------------------|----------------|---------|
| | Royal Observatory | King's Park | Tate's Cairn | R.A.F. Tai Mo Shan | Tai Mo Shan Farm | Sheung Shui Farm | Ting Kok | Royal Observatory | King's Park | Ta Kwu Ling Farm | Tai Mo Shan | |
| JAN 1964 | | | | | | | | | | | | |
| 18 | 9.5 | 9.1 | | 2.8 | | | | 7.1 | 6.4 | | | |
| 24 | 9.9 | 9.4 | | 3.9 | | | | 7.4 | 7.9 | | | |
| 25 | 9.2 | 9.4 | | 4.9 | | | | 10.5 | 9.8 | | | |
| 31 | 9.8 | 9.0 | | 4.4 | | | | 8.2 | 8.2 | | | |
| FEB 1964 | | | | | | | | | | | | |
| 1 | 11.4 | 8.8 | | 4.4 | | | | 9.4 | 9.2 | | | |
| 3 | 11.5 | 11.1 | | 4.9 | | | | 10.7 | 10.7 | | | |
| 20 | 8.7 | 9.8 | | 3.8 | | | | 10.3 | 10.7 | | | |
| 24 | 8.2 | 7.7 | | 3.3 | | | | 8.1 | 7.8 | | | |
| 25 | 7.2 | 7.0 | | 0.0 | | | | 7.6 | 7.2 | | | |
| 26 | 7.1 | 6.3 | | 0.6 | | | | 3.9 | 4.2 | | | |
| 27 | 9.1 | 7.8 | | 5.6 | | | | 4.6 | 6.3 | | | |
| DEC 1964 | | | | | | | | | | | | |
| 15 | 12.0 | 11.6 | | 3.3 | | | | 6.5 | 7.8 | | | |
| 16 | 11.3 | 11.3 | | 5.7 | | | | 5.6 | 4.3 | | | |
| 19 | 12.8 | 12.3 | | 5.6 | | | | 5.3 | 3.2 | | | |
| 20 | 12.9 | 12.2 | | 7.8 | | | | 6.2 | 4.3 | | | |
| 22 | 14.0 | 13.2 | | 17.2 | | | | 8.6 | 4.8 | | | |
| 30 | 14.1 | 13.7 | | 8.9 | | | | 11.0 | 4.7 | | | |
| 31 | 12.5 | 11.8 | | 5.8 | | | | 7.8 | 3.8 | | | |
| JAN 1965 | | | | | | | | | | | | |
| 3 | 13.8 | 12.8 | | 8.3 | | | | - | 4.3 | | 6.0 | |
| 4 | 13.6 | 12.8 | | 7.5 | | | | 6.1 | 1.8 | | 6.5 | |
| 8 | 11.3 | 11.3 | | 5.0 | | | | 5.6 | 2.4 | | 3.5 | |
| 9 | 12.1 | 11.8 | | 5.6 | | | | 4.1 | 2.3 | | 4.4 | |
| 13 | 12.9 | 10.3 | | 5.6 | | | | 7.2 | 4.0 | | 5.0 | |
| 16 | 12.9 | 12.6 | | 7.8 | | | | 7.6 | 3.4 | | 6.5 | |
| 18 | 13.4 | 13.0 | | 11.1 | | | | 7.6 | 4.5 | | 9.5 | |
| DEC 1965 | | | | | | | | | | | | |
| 17 | 8.4 | 8.1 | | 0.6 | | | | 8.4 | 8.0 | | 1.0 | |
| 18 | 7.3 | 6.5 | | 0.6 | | | | 5.0 | 3.6 | | 8.5 | |
| 30 | 10.3 | 11.4 | | 3.9 | | | | 9.8 | 11.4 | | 5.5 | |
| 31 | 9.2 | 8.7 | | 3.9 | | | | 5.2 | 4.8 | | 2.4 | |
| JAN 1966 | | | | | | | | | | | | |
| 1 | 10.1 | 9.2 | | - | | | | 5.3 | 4.8 | | - | |
| FEB 1966 | | | | | | | | | | | | |
| 13 | 11.2 | 11.4 | | 4.7 | | | | 11.8 | 11.0 | | - | |
| 23 | 7.5 | 6.7 | | 2.5 | | | 7.4 | - | 6.9 | | 5.3 | |
| 24 | 8.4 | 7.4 | | 4.4 | | | 9.7 | 7.4 | 7.4 | | 2.8 | |
| 25 | 12.2 | 7.6 | | 4.2 | | | 11.5 | 11.3 | 8.2 | | - | |
| DEC 1966 | | | | | | | | | | | | |
| 1 | 11.1 | 10.6 | | 2.2 | | | 7.1 | 7.9 | 8.7 | | - | |
| 2 | 9.2 | 8.3 | | 1.7 | | | 6.6 | 5.2 | 6.3 | | - | |
| 27 | 8.7 | 8.0 | | 3.3 | | | 6.9 | 8.5 | 8.8 | | 3.0 | |
| 28 | 8.2 | 7.4 | | 2.2 | | | 6.7 | 5.6 | 5.2 | | 3.0 | |
| 29 | 10.6 | 8.0 | | 3.3 | | | 11.8 | 5.5 | 4.8 | | - | |
| JAN 1967 | | | | | | | | | | | | |
| 1 | 11.7 | 16.2 | | 3.9 | | | 7.0 | 13.5 | 13.5 | | - | |
| 2 | 9.1 | 8.2 | | 3.9 | | | 8.0 | 6.7 | 5.2 | | - | |
| 3 | 8.6 | 7.8 | | 0.6 | | | 5.6 | 8.6 | 7.8 | | - | |
| 4 | 8.1 | 7.2 | | 1.7 | | | 9.8 | 5.8 | 5.2 | | - | |
| 15 | 8.3 | 10.6 | | 3.9 | | | 3.8 | 6.8 | 8.4 | | - | |
| 16 | 4.6 | 3.7 | | -3.3 | | | 3.0 | 2.3 | 1.1 | | - | |

TABLE XII (cont'd)

| DATE | MIN. SCREEN TEMP. °C | | | | | | | GRASS MIN. °C | | | | REMARKS |
|----------|----------------------|-------------|--------------|--------------------|------------------|------------------|----------|-------------------|-------------|------------------|-------------|------------------------|
| | Royal Observatory | King's Park | Tate's Cairn | R.A.F. Tai Mo Shan | Tai Mo Shan Farm | Sheung Shui Farm | Ting Kok | Royal Observatory | King's Park | Ta Kwu Ling Farm | Tai Mo Shan | |
| JAN 1967 | | | | | | | | | | | | |
| 17 | 6.5 | 3.8 | | 1.1 | | | 3.0 | -1.3 | 0.6 | | | |
| 18 | 9.0 | 5.7 | | 3.3 | | | 7.0 | 0.6 | 1.4 | | | |
| 31 | 10.6 | 9.8 | 4.7 | 4.4 | | | 10.6 | 10.0 | 8.9 | | | |
| FEB 1967 | | | | | | | | | | | | |
| 2 | 7.9 | 7.3 | 2.8 | 1.7 | | | 7.3 | 8.0 | 7.1 | | | |
| 3 | 7.8 | 6.9 | 1.9 | 3.3 | | | 8.7 | 6.6 | 5.0 | | | |
| 11 | 8.1 | 7.5 | 2.4 | 3.3 | | | 7.4 | 8.0 | 6.7 | | | |
| 12 | 8.6 | 7.7 | 2.3 | 3.9 | | | 9.3 | 8.5 | 8.0 | | | |
| 13 | 11.4 | 8.5 | 4.5 | 5.0 | | | 10.0 | 11.2 | 8.6 | | | |
| 14 | 7.8 | 10.5 | 4.8 | 2.8 | | | 4.9 | 9.6 | 9.4 | | | |
| 15 | 6.8 | 6.1 | 1.0 | 0.6 | | | 7.2 | 4.0 | 3.6 | | | |
| 16 | 10.2 | 6.4 | 2.5 | 7.2 | | | 11.9 | 6.6 | 5.0 | | | |
| 27 | 10.5 | 9.9 | 4.3 | 4.4 | | | 8.5 | 10.7 | 9.7 | | 5.0 | |
| 28 | 9.5 | 8.8 | 4.2 | 6.1 | | | 9.7 | 9.6 | 9.5 | | 6.0 | |
| MAR 1967 | | | | | | | | | | | | |
| 2 | 14.0 | 11.9 | 5.0 | 11.1 | | | 15.2 | 13.5 | 13.4 | | 8.5 | |
| 5 | 10.1 | 15.1 | 13.3 | 13.3 | | | 8.0 | 13.0 | 11.7 | | 12.0 | |
| 6 | 8.8 | 8.1 | 2.5 | 2.8 | | | 9.0 | 9.2 | 4.8 | | 3.5 | |
| 7 | 10.3 | 8.8 | 2.8 | 2.8 | | | 11.5 | 9.9 | 5.8 | | 11.0 | |
| 8 | 12.4 | 10.2 | 2.7 | 7.2 | | | 11.8 | 10.4 | 6.7 | | 10.0 | |
| DEC 1967 | | | | | | | | | | | | |
| 10 | 11.0 | 11.9 | 6.5 | 3.6 | | | 5.0 | 9.3 | 10.5 | | | |
| 11 | 8.4 | 8.2 | 3.6 | 2.2 | | | 4.7 | 3.4 | 6.0 | | | |
| 12 | 9.0 | 8.7 | 3.1 | 4.7 | | | 10.0 | 2.0 | 2.5 | | | |
| 13 | 10.8 | 9.2 | 6.8 | 4.4 | | | 7.5 | 8.6 | 9.5 | | | Light snow Tai Mo Shan |
| 14 | 10.2 | 10.0 | 5.5 | 4.4 | | | 9.5 | 4.0 | 5.5 | | | |
| 15 | 10.2 | 9.9 | 5.7 | 5.6 | | | 10.0 | 2.8 | 6.1 | | | |
| 17 | 13.6 | 12.8 | 8.3 | 8.9 | | | 8.5 | 6.8 | 8.8 | | | |
| 18 | 12.8 | 13.2 | 8.5 | 10.6 | | | 8.5 | 4.9 | 4.3 | | | |
| 29 | 7.3 | 6.7 | 1.4 | 0.6 | | | 7.0 | 5.1 | 5.6 | | | |
| 30 | 8.2 | 6.4 | 1.1 | 3.3 | | | 8.5 | 6.5 | 6.7 | | | |
| 31 | 11.5 | 8.2 | 1.1 | 4.2 | | | 7.0 | 7.8 | 8.4 | | | |
| JAN 1968 | | | | | | | | | | | | |
| 1 | 10.4 | 10.4 | 5.4 | 6.1 | | | 9.0 | 4.2 | 4.3 | | | |
| 16 | 12.4 | 11.8 | 7.0 | 6.1 | | | 10.0 | 5.0 | 10.1 | | 5.5 | |
| 23 | 13.1 | 12.8 | 8.0 | 3.9 | | | 11.0 | 11.5 | 12.0 | | 7.0 | |
| FEB 1968 | | | | | | | | | | | | |
| 3 | 8.9 | 8.2 | 4.0 | 5.6 | | | 7.2 | 8.7 | 8.2 | | | |
| 4 | 9.2 | 8.8 | 3.9 | 6.1 | | | 7.4 | 9.7 | 9.4 | | | |
| 5 | 8.9 | 8.1 | 3.9 | 6.7 | | | 7.2 | 8.9 | 8.4 | | | |
| 6 | 8.0 | 7.4 | 2.8 | 2.8 | | | 5.4 | 11.9 | 12.4 | | | |
| 7 | 6.3 | 5.9 | 1.5 | 2.2 | | | 5.1 | 6.3 | 5.7 | | | |
| 8 | 5.9 | 5.1 | 0.3 | 3.3 | | | 7.0 | 5.0 | 4.8 | | | |
| 9 | 7.2 | 6.0 | 0.5 | 3.9 | | | 8.1 | 5.5 | 6.7 | | | |
| 10 | 8.5 | 5.8 | 0.7 | 2.8 | | | 10.0 | 6.6 | 6.7 | | | |
| 11 | 8.8 | 6.1 | 0.9 | 2.5 | | | 4.8 | 5.2 | 5.6 | | | |
| 12 | 9.8 | 8.8 | 4.5 | 2.2 | | | 9.4 | 7.5 | 11.4 | | | |
| 14 | 8.2 | 9.3 | 5.0 | 6.7 | | | 1.9 | 9.2 | 8.7 | | | |
| 15 | 5.7 | 5.6 | 0.9 | 3.9 | | | 7.3 | 2.2 | 5.1 | | | |
| 16 | 10.8 | 5.7 | 2.5 | 3.9 | | | 10.3 | 8.5 | 7.8 | | | |
| 17 | 10.9 | 10.4 | 2.4 | 8.9 | | | 11.0 | 8.4 | 10.0 | | | |
| 20 | 8.4 | 8.9 | 4.5 | 4.2 | | | 7.0 | 9.0 | 8.4 | | | |
| 21 | 8.0 | 7.4 | 2.8 | 3.1 | | | 8.6 | 7.0 | 6.5 | | | |
| 22 | 10.4 | 8.7 | 4.0 | 6.1 | | | 9.8 | 9.1 | 9.0 | | | |
| 25 | 10.3 | 9.8 | 5.0 | 5.8 | | | 10.0 | 8.3 | 8.3 | | | |

TABLE XII (cont'd)

| DATE | MIN. SCREEN TEMP. °C | | | | | | | GRASS MIN. °C | | | | REMARKS |
|----------|----------------------|-------------|--------------|--------------------|------------------|------------------|----------|-------------------|-------------|------------------|-------------|---------|
| | Royal Observatory | King's Park | Tate's Cairn | R.A.F. Tai Mo Shan | Tai Mo Shan Farm | Sheung Shui Farm | Ting Kok | Royal Observatory | King's Park | Ta Kwu Ling Farm | Tai Mo Shan | |
| MAR 1968 | | | | | | | | | | | | |
| 2 | 9.9 | 9.1 | 4.0 | 2.5 | | | 4.0 | 9.9 | 9.0 | | | |
| 3 | 7.8 | 7.0 | 2.4 | 7.8 | | | 6.6 | 6.9 | 3.2 | | | |
| 4 | 10.1 | 7.1 | 5.9 | 5.3 | | | 12.0 | 4.5 | 5.4 | | | |
| 17 | 16.8 | 16.5 | 3.5 | 11.9 | | | 17.0 | 16.2 | 15.1 | | | |
| DEC 1968 | | | | | | | | | | | | |
| 22 | 11.2 | 9.2 | 5.1 | 2.5 | | | 10.5 | 9.9 | 10.3 | | | |
| JAN 1969 | | | | | | | | | | | | |
| 13 | 10.2 | 9.1 | 4.2 | 6.7 | | | 9.2 | 10.0 | 9.0 | | | |
| 14 | 11.8 | 10.6 | 4.6 | 11.7 | | | 8.5 | 12.1 | 12.9 | | | |
| 15 | 10.5 | 9.8 | 4.8 | 7.8 | | | 7.5 | 10.6 | 9.5 | | | |
| 16 | 10.2 | 9.4 | 4.0 | 4.4 | | | 9.0 | 11.4 | 9.6 | | | |
| 17 | 12.3 | 9.4 | 3.9 | 10.6 | | | 12.0 | 10.8 | 11.3 | | | |
| 31 | 8.7 | 8.6 | 3.2 | 2.5 | | | 5.4 | 9.4 | 8.4 | | | |
| FEB 1969 | | | | | | | | | | | | |
| 1 | 8.0 | 7.0 | 1.4 | 5.6 | | | 6.2 | 7.9 | 7.7 | | | |
| 2 | 9.3 | 7.7 | 1.5 | 5.6 | | | 8.0 | 9.8 | 9.1 | | | |
| 3 | 9.5 | 8.8 | 3.0 | 9.4 | | | 5.0 | 10.5 | 10.0 | | | |
| 4 | 5.1 | 5.3 | 0.5 | -1.1 | | | 2.6 | 2.2 | 1.6 | | | |
| 5 | 4.0 | 3.1 | -2.3 | -3.9 | | | 4.1 | 1.3 | | | | |
| 6 | 6.9 | 3.6 | 1.5 | 1.7 | | | 7.9 | 2.4 | 1.2 | | | |
| 7 | 10.4 | 6.6 | 3.0 | 5.0 | | | 3.6 | 7.0 | 6.7 | | | |
| 8 | 7.0 | 6.8 | 1.9 | 1.7 | | | 7.3 | 1.1 | 1.5 | | | |
| 22 | 9.2 | 8.5 | 3.9 | 6.1 | | | 7.7 | 9.3 | 8.5 | | | |
| 23 | 11.4 | 8.9 | 5.0 | 9.4 | | | 10.4 | 10.6 | 10.4 | | | |
| 24 | 12.3 | 12.3 | 5.0 | 15.0 | | | 10.3 | 12.5 | 12.2 | | | |
| 27 | 10.3 | 9.7 | 5.0 | 6.7 | | | 9.1 | 10.9 | 9.4 | | | |
| 28 | 11.3 | 9.3 | 4.4 | 5.0 | | | 10.5 | 10.9 | 14.9 | | | |
| APR 1969 | | | | | | | | | | | | |
| 5 | 9.9 | 9.7 | 4.2 | 1.7 | | | 9.0 | 10.2 | 9.8 | | | |
| 6 | 11.7 | 9.1 | 6.5 | 4.4 | | | 9.3 | 8.2 | 8.5 | | | |
| NOV 1969 | | | | | | | | | | | | |
| 26 | 12.5 | 12.0 | 5.6 | 6.7 | | | 9.1 | 9.7 | 8.5 | | | 4.5 |
| 27 | 14.0 | 12.0 | 7.1 | 9.4 | | | 13.1 | 9.4 | 10.6 | | | 4.0 |
| DEC 1969 | | | | | | | | | | | | |
| 1 | 14.3 | 13.8 | 1.6 | 7.8 | | | 10.0 | 9.6 | 9.7 | | | 4.0 |
| 2 | 14.2 | 14.0 | 8.6 | 9.4 | | | 10.2 | 9.2 | 8.0 | | | 5.0 |
| 3 | 11.6 | 11.0 | 4.0 | 3.3 | | | 6.0 | 8.6 | 5.5 | | | 4.0 |
| 4 | 11.8 | 10.5 | 5.7 | 5.0 | | | 10.0 | 6.3 | 2.5 | | | 1.0 |
| 5 | 15.4 | 11.3 | 8.9 | 11.1 | | | 15.0 | 9.7 | 9.1 | | | 4.5 |
| 9 | 9.6 | 8.6 | 2.2 | 2.8 | | | 8.0 | 6.6 | 2.3 | | | 4.0 |
| 10 | 10.3 | 8.6 | 3.3 | 3.9 | | | 7.6 | 5.5 | 2.4 | | | 0.5 |
| 11 | 12.5 | 9.5 | 7.5 | 5.0 | | | 9.3 | 6.7 | 10.0 | | | 0.5 |
| 12 | 13.3 | 12.4 | 8.4 | 10.6 | | | 13.2 | 7.7 | 3.8 | | | 2.5 |
| 13 | 14.2 | 12.4 | 6.8 | 7.2 | | | 7.4 | 9.9 | 9.7 | | | 3.0 |
| 14 | 11.3 | 10.7 | 8.2 | 6.7 | | | 10.7 | 6.4 | 4.3 | | | 3.5 |
| 15 | 13.9 | 10.7 | 8.9 | 7.2 | | | 12.3 | 11.8 | 9.8 | | | 4.5 |
| 19 | 14.0 | 13.7 | 8.2 | 9.4 | | | 10.7 | 9.7 | 10.1 | | | 4.5 |
| 20 | 13.6 | 12.7 | 9.2 | 7.2 | | | 9.0 | 10.6 | 8.5 | | | 3.0 |
| 21 | 13.4 | 13.0 | 9.4 | 9.4 | | | 9.9 | 7.9 | 9.6 | | | 3.0 |
| 22 | 14.7 | 14.0 | 10.1 | 11.7 | | | 13.0 | 9.7 | 8.2 | | | 4.5 |
| 28 | 10.0 | 9.4 | 4.6 | 5.6 | | | 11.5 | 7.0 | 6.7 | | | 5.0 |
| JAN 1970 | | | | | | | | | | | | |
| 6 | 10.4 | 9.3 | 4.8 | 5.0 | | | 9.1 | 9.5 | 8.4 | | | 6.0 |
| 10 | 11.6 | 12.3 | 5.3 | 7.8 | | | 7.8 | 10.0 | 8.9 | | | 10.0 |
| 12 | 13.1 | 10.5 | 7.9 | 10.6 | | | 13.3 | 8.4 | 5.3 | | | 4.5 |
| 15 | 8.2 | 8.2 | 2.9 | 0.0 | | | 6.2 | 6.0 | 5.1 | | | 3.5 |
| 16 | 8.2 | 7.2 | 1.3 | 1.7 | | | 7.7 | 6.3 | 2.0 | | | 1.5 |
| 17 | 9.8 | 7.6 | 4.3 | 3.9 | | | 8.9 | 6.1 | 5.1 | | | 2.0 |

RECORD BEGAN IN JULY 1969

RECORD BEGAN IN OCT 1969

RECORD BEGAN IN 1969

TABLE XII (cont'd)

| DATE | MIN. SCREEN TEMP. °C | | | | | | | GRASS MIN. °C | | | | REMARKS |
|-----------------|----------------------|-------------|--------------|--------------------|------------------|------------------|----------|-------------------|-------------|------------------|-------------|-------------------------|
| | Royal Observatory | King's Park | Tate's Cairn | R.A.F. Tai Mo Shan | Tai Mo Shan Farm | Sheung Shui Farm | Ting Kok | Royal Observatory | King's Park | Ta Kwu Ling Farm | Tai Mo Shan | |
| JAN 1970 | | | | | | | | | | | | |
| 18 | 8.9 | 9.1 | 4.4 | 6.4 | 6.5 | | 6.6 | 8.9 | 7.4 | 7.0 | | |
| 19 | 7.6 | 6.7 | 0.9 | -0.6 | 6.0 | | 4.3 | 7.0 | 5.8 | 4.0 | | |
| 20 | 8.2 | 6.8 | 2.2 | 3.3 | 5.0 | | 6.5 | 7.8 | 1.2 | 0.3 | | |
| 21 | 10.6 | 10.0 | 5.5 | 5.0 | 4.0 | | 9.4 | 6.5 | 3.3 | 1.0 | | |
| 22 | 12.8 | 10.0 | 4.7 | 10.0 | 10.0 | | 11.7 | 10.3 | 10.2 | 5.5 | | |
| 30 | 12.0 | 11.5 | 2.4 | 3.9 | 6.5 | | 9.0 | 8.6 | 8.0 | 14.0 | | |
| 31 | 10.2 | 9.6 | 5.5 | 4.4 | 6.5 | | 6.2 | 6.6 | 4.2 | 1.5 | | |
| FEB 1970 | | | | | | | | | | | | |
| 1 | 11.6 | 9.6 | 5.6 | 5.0 | 6.5 | | 6.2 | 5.9 | 6.3 | 1.5 | | |
| 13 | 12.6 | 11.6 | 7.9 | 9.4 | 8.5 | | 8.5 | 8.2 | 10.0 | 4.5 | | |
| JAN 1971 | | | | | | | | | | | | |
| 3 | 11.0 | 9.5 | 3.0 | - | - | | 9.2 | 6.2 | 5.4 | 7.5 | | |
| 5 | 9.7 | 9.2 | 3.7 | - | - | | 5.9 | 5.6 | 2.8 | 3.0 | | |
| 6 | 9.8 | 9.2 | 5.5 | - | - | | 6.1 | 5.6 | 1.3 | 1.2 | | |
| 7 | 10.8 | 9.2 | 7.6 | - | - | | 6.0 | 5.3 | 3.3 | 2.0 | | |
| 9 | 12.0 | 11.7 | 5.4 | - | - | | 11.0 | 6.0 | 8.1 | 4.5 | | |
| 10 | 12.3 | 11.3 | 7.1 | - | - | | 5.9 | 8.0 | 5.1 | 2.5 | | |
| 11 | 12.0 | 11.1 | 6.9 | - | - | | 7.2 | 5.8 | 6.1 | 4.0 | | |
| 12 | 12.5 | 11.2 | 9.5 | - | - | | 6.1 | 5.7 | 7.2 | 2.5 | | |
| 13 | 13.4 | 12.5 | 9.7 | - | - | | 8.6 | 7.1 | 6.6 | 5.0 | | |
| 22 | 9.9 | 9.3 | 4.4 | - | - | | 8.6 | 8.0 | 8.2 | 9.5 | | |
| 25 | 8.6 | 7.7 | 2.6 | - | - | | 7.3 | 7.4 | 7.2 | 6.5 | | |
| 26 | 9.0 | 8.2 | 4.2 | - | - | | 5.5 | 6.0 | 2.4 | 6.0 | | |
| 29 | 7.9 | 7.4 | 2.5 | - | - | | 6.5 | 7.5 | 7.2 | 6.0 | | |
| 30 | 5.6 | 4.7 | -0.3 | - | - | | 4.2 | 5.6 | 5.2 | 5.0 | | |
| 31 | 5.5 | 4.4 | -0.6 | - | - | | 4.3 | 5.3 | 4.5 | 5.0 | | |
| FEB 1971 | | | | | | | | | | | | |
| 1 | 9.1 | 5.8 | 2.3 | - | 4.0 | | 5.6 | 8.1 | 7.1 | 5.0 | | |
| 2 | 9.0 | 8.4 | 3.7 | - | 7.0 | | 6.8 | 6.6 | 3.0 | 4.0 | | |
| 3 | 10.5 | 8.9 | 5.0 | - | 7.0 | | 8.2 | 6.4 | 4.8 | 5.5 | | |
| 5 | 11.5 | 10.8 | 5.5 | - | 6.0 | | 9.4 | 4.9 | 7.4 | 7.5 | | |
| 6 | 9.8 | 9.4 | 3.3 | - | 4.0 | | 8.9 | 9.2 | 8.0 | 8.0 | | |
| 7 | 9.6 | 8.8 | 3.0 | - | 6.0 | | 7.6 | 10.7 | 8.5 | 7.0 | | |
| MAR 1971 | | | | | | | | | | | | |
| 16 | 14.1 | 13.5 | 9.6 | - | 16.5 | | 10.0 | 8.9 | 7.5 | - | | |
| NOV 1971 | | | | | | | | | | | | |
| 17 | 14.4 | 13.5 | 3.3 | - | 9.5 | | 11.0 | 8.1 | 6.9 | 7.0 | | |
| 18 | 14.7 | 14.1 | 9.5 | - | 10.0 | | 9.4 | 7.9 | 4.7 | 8.0 | | |
| 19 | 16.1 | 15.0 | 10.5 | - | 10.0 | | 11.6 | 7.7 | 7.3 | 4.5 | | |
| 30 | 11.7 | 10.8 | 5.2 | - | 4.5 | | 10.6 | 9.7 | 9.5 | 16.0 | | |
| DEC 1971 | | | | | | | | | | | | |
| 27 | 9.8 | 9.4 | 4.4 | - | 2.5 | | 9.4 | 8.6 | 6.6 | 13.0 | | |
| 28 | 10.0 | 9.5 | 3.6 | - | 2.0 | | 7.9 | 6.7 | 6.4 | 7.0 | | |
| 30 | 12.7 | 10.7 | 8.4 | - | 8.5 | | 8.6 | 8.0 | 4.8 | 5.5 | | |
| JAN 1972 | | | | | | | | | | | | |
| 10 | 10.6 | 10.1 | 4.5 | - | - | | 9.3 | 6.2 | 4.1 | - | | |
| 11 | 8.6 | 7.5 | 2.5 | - | - | | 5.8 | 5.2 | 2.0 | - | | |
| 12 | 8.5 | 7.6 | 3.0 | - | - | | 5.1 | 4.5 | 3.5 | - | | |
| 13 | 7.9 | 7.3 | 3.0 | - | - | | 4.2 | 3.2 | 1.6 | - | | |
| 14 | 8.5 | 8.0 | 2.5 | - | - | | 7.1 | 4.0 | 3.0 | - | | |
| 15 | 9.9 | 7.9 | 4.3 | - | - | | 5.3 | 5.5 | 1.9 | - | | |
| FEB 1972 | | | | | | | | | | | | |
| 8 | 6.4 | 7.8 | 1.0 | - | - | | 6.4 | 8.7 | 7.4 | 6.0 | | |
| 9 | 3.8 | 3.4 | -2.1 | - | -3.0 | | 3.6 | 2.9 | 3.2 | 4.0 | | Frost, Tai Mo Shan Farm |
| 10 | 5.7 | 3.7 | -0.8 | - | - | | 3.3 | 2.5 | 3.8 | 3.0 | | |
| 11 | 7.8 | 5.0 | 3.8 | - | 3.0 | | 4.2 | 8.1 | 0.4 | 8.0 | | |

TABLE XII (cont'd)

| DATE | MIN. SCREEN TEMP. °C | | | | | | | GRASS MIN. °C | | | | REMARKS |
|-----------------|----------------------|-------------|--------------|--------------------|------------------|------------------|----------|-------------------|-------------|------------------|------------------------------|---------|
| | Royal Observatory | King's Park | Tate's Cairn | R.A.F. Tai Mo Shan | Tai Mo Shan Farm | Sheung Shui Farm | Ting Kok | Royal Observatory | King's Park | Ta Kwu Ling Farm | Tai Mo Shan | |
| FEB 1972 | | | | | | | | | | | | |
| 27 | 9.4 | 8.8 | 3.6 | - | 2.0 | | 8.6 | 9.3 | 8.2 | 9.5 | | |
| 28 | 8.7 | 8.0 | 3.0 | - | 1.5 | | 8.1 | 9.0 | 8.1 | 7.5 | | |
| 29 | 10.2 | 7.3 | 3.5 | - | 4.0 | | 8.9 | 9.4 | 8.8 | 8.0 | | |
| MAR 1972 | | | | | | | | | | | | |
| 1 | 10.5 | 10.0 | 2.4 | - | 4.5 | | 9.0 | 5.0 | 5.2 | 4.5 | | |
| 2 | 10.7 | 10.1 | 3.2 | - | 5.0 | | 6.5 | 7.3 | 7.6 | 4.5 | | |
| 3 | 10.6 | 10.8 | 6.1 | - | 6.0 | | 8.0 | 4.6 | 16.0 | 3.0 | | |
| 4 | 11.9 | 10.7 | 7.9 | - | 8.0 | | 6.3 | 6.7 | 14.0 | 3.0 | | |
| 12 | 13.9 | 13.8 | 3.2 | - | 9.0 | | 13.2 | 10.6 | 10.0 | 15.0 | | |
| DEC 1972 | | | | | | | | | | | | |
| 4 | 18.7 | 16.5 | 10.0 | 14.0 | 14.0 | 15.0 | 16.7 | 15.0 | 13.1 | - | | |
| 13 | 11.0 | 10.3 | 4.0 | 3.0 | 4.5 | 5.5 | 10.1 | 10.0 | 11.0 | - | | |
| 14 | 10.5 | 9.5 | 4.8 | 6.0 | 6.0 | 4.0 | 8.6 | 9.8 | 5.2 | - | | |
| 29 | 9.2 | 10.0 | 3.6 | 3.0 | 3.5 | 6.0 | 8.8 | 9.5 | 11.5 | - | | |
| 30 | 8.8 | 7.5 | 2.9 | 4.0 | 3.5 | 3.0 | 7.6 | 7.5 | 10.5 | - | | |
| 31 | 12.1 | 9.5 | 5.3 | 8.0 | 4.5 | | 8.9 | 10.9 | 11.0 | - | | |
| JAN 1973 | | | | | | | | | | | | |
| 1 | 12.6 | 9.6 | 9.5 | 14.0 | | 4.0 | 11.9 | 13.4 | 13.1 | - | | |
| 2 | 9.7 | 9.1 | 3.0 | | | 4.0 | 8.6 | 7.1 | 5.3 | - | | |
| 3 | 11.1 | 9.2 | 5.0 | 5.0 | | 5.5 | 10.1 | 10.1 | 9.8 | - | | |
| 30 | 10.2 | 9.5 | 5.4 | 7.0 | | 4.0 | 9.3 | 5.9 | 4.5 | - | | |
| FEB 1973 | | | | | | | | | | | | |
| 20 | 14.3 | 13.9 | 4.9 | 10.0 | 7.5 | 11.0 | 13.2 | 11.0 | 17.4 | - | | |
| MAR 1973 | | | | | | | | | | | | |
| 13 | 18.6 | 21.0 | 4.6 | 16.5 | | 20.0 | 21.2 | 19.4 | 18.7 | - | | |
| DEC 1973 | | | | | | | | | | | | |
| 10 | 14.5 | 13.5 | 10.6 | 9.0 | 9.5 | 14.0 | 13.5 | 9.9 | 4.9 | 5.2 | | |
| 17 | 12.8 | 12.5 | 7.5 | 7.0 | 8.5 | 5.0 | 10.1 | 7.0 | 6.8 | 8.2 | | |
| 22 | 12.1 | 11.2 | 6.1 | 4.0 | 5.5 | 8.0 | 11.0 | 7.5 | 4.7 | 7.5 | | |
| 23 | 10.5 | 9.7 | 6.5 | 6.0 | 5.0 | 2.0 | 6.5 | 3.0 | 6.5 | 8.5 | | |
| 24 | 10.2 | 10.7 | 6.4 | 2.5 | 5.5 | 6.0 | 11.3 | 8.2 | 6.7 | 6.0 | | |
| 25 | 7.0 | 5.7 | 1.7 | -1.0 | 0.5 | 4.0 | 5.2 | 3.4 | 2.5 | -0.6 | | |
| 26 | 7.0 | 6.0 | 1.5 | 1.0 | 2.5 | -1.0 | 3.8 | 1.0 | -1.8 | -0.8 |) Frost at Sheung Shui | |
| 27 | 8.6 | 6.6 | 4.5 | 4.0 | 5.5 | -1.5 | 5.3 | 1.6 | 1.5 | -3.3 | | |
| 28 | 11.2 | 8.9 | 4.3 | 4.0 | 4.5 | 5.5 | 10.7 | 6.0 | 7.1 | 3.0 | | |
| 29 | 10.9 | 9.9 | 4.8 | 4.0 | 6.0 | 7.0 | 9.1 | 7.1 | 6.7 | 15.0 | | |
| 30 | 10.2 | 9.8 | 5.3 | 4.0 | 6.0 | 5.0 | 6.9 | 5.4 | 5.7 | 3.0 | | |
| 31 | 12.1 | 10.7 | 5.0 | 5.0 | 7.0 | 3.0 | 11.2 | 5.8 | 3.1 | 2.8 | | |
| JAN 1974 | | | | | | | | | | | | |
| 1 | 11.6 | 11.0 | 7.6 | 6.0 | 5.5 | -1.0 | 9.0 | 5.5 | 2.8 | - |) Frost at Sheung Shui | |
| 2 | 10.8 | 10.2 | 8.1 | 6.0 | 8.5 | -1.0 | 5.8 | 5.0 | 0.3 | -2.5 | | |
| 3 | 10.9 | 10.2 | 7.6 | 6.0 | 11.0 | -1.0 | 6.4 | 3.0 | 3.6 | 0.6 | | |
| 4 | 11.6 | 10.7 | 8.2 | 8.0 | 8.5 | | 7.7 | 3.1 | 0.2 | -0.8 | | |
| 5 | 12.8 | 11.8 | 7.4 | 6.0 | 10.0 | 2.0 | 7.8 | 8.0 | 6.0 | 0.7 | | |
| 6 | 12.7 | 11.5 | 7.4 | 6.0 | 6.5 | 4.0 | 11.0 | 8.9 | 3.3 | 4.6 | | |
| FEB 1974 | | | | | | | | | | | | |
| 2 | 10.8 | 9.8 | 4.0 | 2.0 | 9.5 | 10.5 | 9.1 | 10.4 | 7.2 | 8.0 | | |
| 3 | 11.2 | 10.0 | 4.4 | 2.0 | 10.0 | 7.0 | 8.9 | 9.0 | - | 10.0 | | |
| 6 | 9.3 | 11.0 | 5.8 | 2.0 | 3.5 | 8.0 | 10.2 | 11.2 | 10.4 | 10.5 | | |
| 7 | 6.4 | 7.8 | 1.5 | - | 1.0 | 4.0 | 7.3 | 7.8 | 6.4 | 6.8 | | |
| 8 | 4.9 | 4.1 | -1.5 | -3.5 | -2.0 | 2.5 | 3.4 | 2.4 | 2.4 | 3.0 | | |
| 9 | 7.1 | 4.5 | 0.7 | 1.0 | 2.5 | 1.5 | 5.6 | 2.2 | 2.6 | 0.6 | | |

TABLE XII (cont'd)

| DATE | MIN. SCREEN TEMP. °C | | | | | | | GRASS MIN. °C | | | | REMARKS |
|-----------------|----------------------|-------------|--------------|--------------------|------------------|------------------|----------|-------------------|-------------|------------------|-------------|---------|
| | Royal Observatory | King's Park | Tate's Cairn | R.A.F. Tai Mo Shan | Tai Mo Shan Farm | Sheung Shui Farm | Ting Kok | Royal Observatory | King's Park | Ta Kwu Ling Farm | Tai Mo Shan | |
| FEB 1974 | | | | | | | | | | | | |
| 10 | 8.0 | 7.1 | 3.0 | 2.0 | 3.5 | 2.0 | 6.4 | 3.4 | 0.9 | 3.0 | | |
| 11 | 8.1 | 7.3 | 3.0 | 2.0 | 4.0 | 2.0 | 7.2 | 3.9 | 2.2 | 0.5 | | |
| 12 | 8.7 | 7.5 | 4.6 | 3.0 | 5.5 | 0.5 | 6.3 | 3.3 | 0.6 | 0.8 | | |
| 13 | 12.2 | 9.4 | 6.8 | 5.0 | 6.5 | 5.0 | 11.1 | 9.6 | 6.9 | 5.5 | | |
| 25 | 5.8 | 5.9 | 0.4 | -2.0 | -0.5 | 4.0 | 5.2 | 6.4 | 5.5 | 5.5 | | |
| 26 | 4.2 | 3.4 | -2.2 | -4.0 | -3.0 | 2.0 | 2.4 | 1.3 | 0.8 | 1.3 | | |
| 27 | 6.7 | 4.1 | 0.4 | 1.0 | -2.0 | 0.5 | 5.6 | 2.5 | 1.0 | 2.4 | | |
| 28 | 9.0 | 7.6 | 3.6 | 3.0 | 4.5 | 2.0 | 6.9 | 3.8 | 1.4 | 2.3 | | |
| DEC 1974 | | | | | | | | | | | | |
| 6 | 13.4 | 12.8 | 7.5 | 9.0 | | 10.0 | 11.7 | 10.6 | 8.9 | 2.3 | | |
| 7 | 15.3 | 12.9 | 10.0 | 10.0 | | 11.0 | 13.6 | 11.9 | 10.2 | 4.4 | | |
| 8 | 16.7 | 15.2 | 9.8 | 13.0 | | 12.0 | 14.4 | 14.5 | 11.5 | 4.4 | | |
| 11 | 13.4 | 12.7 | 7.5 | 8.0 | | 11.0 | 11.9 | 11.0 | 8.5 | 1.5 | | |
| 12 | 13.7 | 13.0 | 6.8 | 7.0 | | 11.0 | 12.2 | 11.6 | 9.2 | 2.5 | | |
| 15 | 12.3 | 11.8 | 6.5 | 12.0 | | 9.0 | 10.8 | 12.0 | 10.7 | 2.2 | | |
| 16 | 14.2 | 13.5 | 9.0 | 5.0 | | 11.0 | 11.3 | 11.3 | 9.4 | 1.6 | | |
| 17 | 16.2 | 14.3 | 12.0 | 5.0 | | 14.0 | 13.9 | 12.5 | 11.0 | 2.8 | | |
| 18 | 14.5 | 15.4 | 8.6 | 6.0 | | 12.0 | 14.5 | 13.4 | 12.1 | 4.3 | | |
| 19 | 11.9 | 11.0 | 5.8 | 6.5 | | 9.0 | 11.0 | 11.6 | 10.0 | 3.0 | | |
| 20 | 10.8 | 10.1 | 4.5 | 6.0 | | 8.0 | 9.7 | 10.4 | 8.8 | 1.3 | | |
| 23 | 15.6 | 13.9 | 10.4 | 2.0 | | 9.0 | 12.8 | 11.8 | 8.8 | 1.2 | | |
| 24 | 16.6 | 15.7 | 12.2 | 6.5 | | 12.0 | 14.0 | 14.1 | 11.9 | 4.1 | | |
| JAN 1975 | | | | | | | | | | | | |
| 16 | 13.4 | 13.3 | 7.6 | 5.0 | | 11.0 | 12.5 | 12.1 | 11.6 | 10.2 | | |
| 21 | 13.4 | 12.7 | 8.2 | 6.0 | | 11.0 | 11.1 | 12.6 | 9.5 | 12.8 | | |
| 22 | 10.5 | 9.9 | 4.4 | 2.0 | | 7.0 | 8.8 | 6.6 | 6.3 | 7.0 | | |
| 23 | 12.6 | 10.0 | 8.0 | 6.5 | | 5.0 | 9.5 | 7.9 | 6.0 | 6.1 | | |
| FEB 1975 | | | | | | | | | | | | |
| 22 | 12.4 | 12.2 | 8.6 | 7.0 | | 5.0 | 11.6 | 7.3 | 7.0 | - | | |
| MAR 1975 | | | | | | | | | | | | |
| 15 | 11.5 | 11.2 | 6.0 | 5.0 | | 9.0 | 10.6 | 10.8 | 10.0 | - | | |
| NOV 1975 | | | | | | | | | | | | |
| 24 | 8.5 | 7.8 | 2.5 | 1.0 | | 5.0 | 7.0 | 5.0 | 2.9 | - | | |
| 25 | 10.3 | 8.0 | 5.7 | 3.0 | | 3.0 | 6.4 | 5.9 | 4.5 | - | | |
| DEC 1975 | | | | | | | | | | | | |
| 11 | 9.5 | 8.6 | 4.0 | 3.0 | | 7.0 | 8.0 | 9.1 | - | 8.8 | | |
| 12 | 7.8 | 6.8 | 1.8 | - | | 5.0 | 6.2 | 8.1 | - | 7.4 | | |
| 13 | 6.2 | 6.1 | 1.1 | - | | 4.0 | 5.5 | 8.2 | - | 6.2 | | |
| 14 | 4.3 | 3.6 | -1.8 | -4.0 | | 2.0 | 2.7 | 4.2 | - | 3.2 | | |
| 15 | 5.3 | 3.4 | -1.6 | -5.0 | | 2.0 | 2.7 | 4.2 | - | 3.1 | | |
| 16 | 4.8 | 3.8 | -0.7 | -3.0 | | 3.0 | 3.8 | 3.3 | - | 1.3 | | |
| 17 | 5.7 | 5.0 | 0.4 | -2.0 | | 4.0 | 3.3 | 1.3 | - | 4.0 | | |
| 18 | 7.5 | 5.7 | 3.2 | 2.0 | | 2.5 | 4.2 | 2.5 | - | 0.5 | | |
| 19 | 10.2 | 8.9 | 6.2 | 1.0 | | 3.0 | 8.0 | 5.2 | - | 4.0 | | |
| 22 | 9.5 | 9.2 | 4.4 | 1.0 | | 1.0 | 9.2 | 3.8 | - | 2.7 | | |
| 23 | 10.0 | 8.5 | 4.4 | 4.0 | | 0.7 | 6.7 | 4.2 | - | 2.0 | | |
| 24 | 10.0 | 9.6 | 5.6 | 4.0 | | 0.5 | 7.0 | 3.6 | - | - | | |
| 25 | 11.9 | 10.7 | 7.2 | 8.0 | | 3.5 | 7.0 | 7.2 | - | 3.7 | | |
| 28 | 9.6 | 10.5 | 6.0 | 2.0 | | 8.0 | 10.0 | 5.5 | - | 6.0 | | |
| 29 | 7.4 | 6.9 | 1.9 | -1.0 | | 4.5 | 6.2 | 6.9 | - | 2.5 | | |
| 30 | 8.8 | 7.0 | 4.3 | 3.0 | | 0.7 | 3.8 | 2.0 | - | -1.6 | | |
| 31 | 10.6 | 7.1 | 7.4 | 7.0 | | 0.5 | 6.0 | 5.4 | - | 2.0 | | |
| MEAN | 10.4 | 9.6 | 4.6 | 4.8 | 6.1 | 5.4 | 8.4 | 7.5 | 7.0 | 3.5 | | |

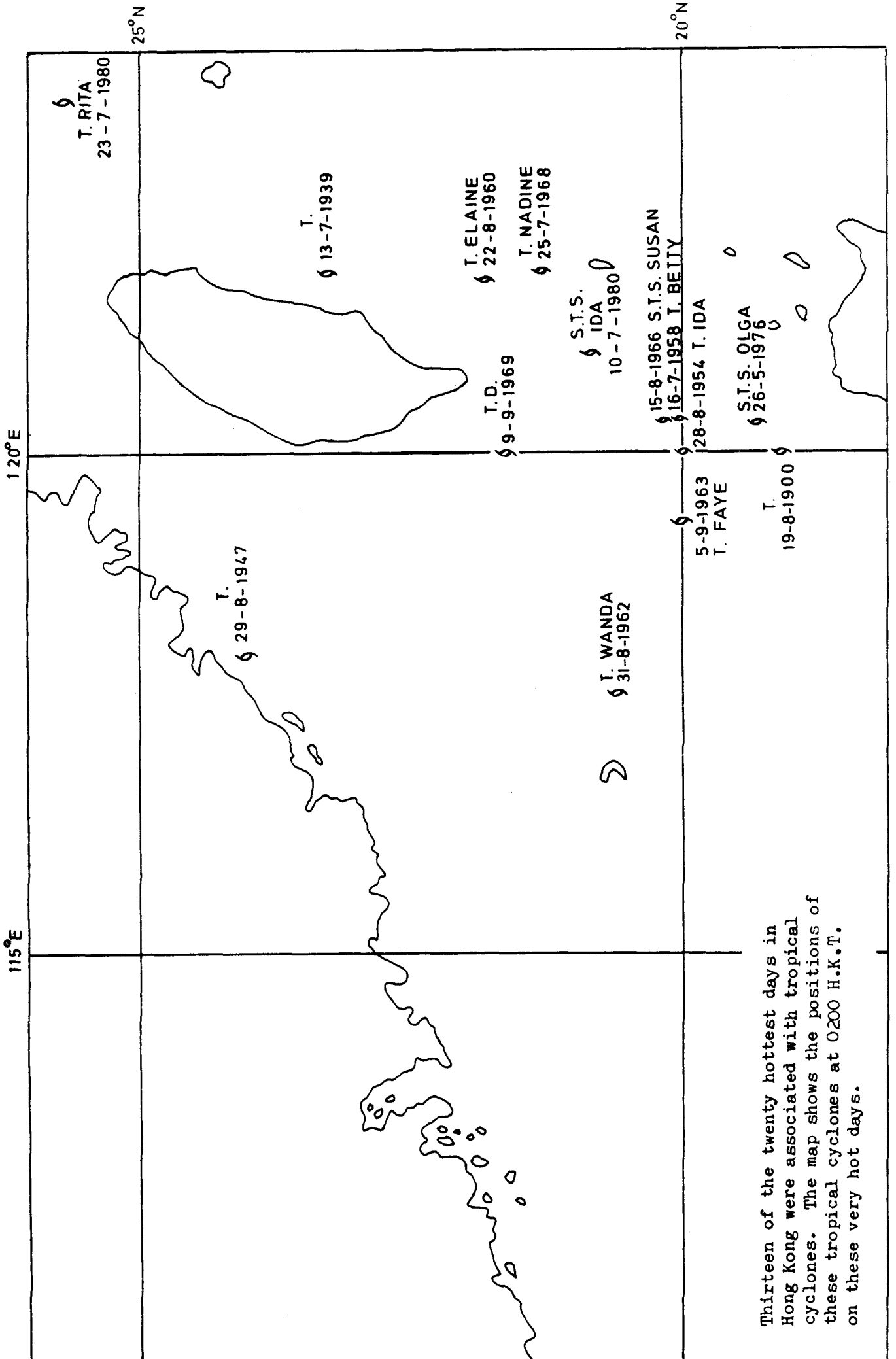


Fig. I THE POSITIONS OF TROPICAL CYCLONES ON VERY HOT DAYS IN HONG KONG

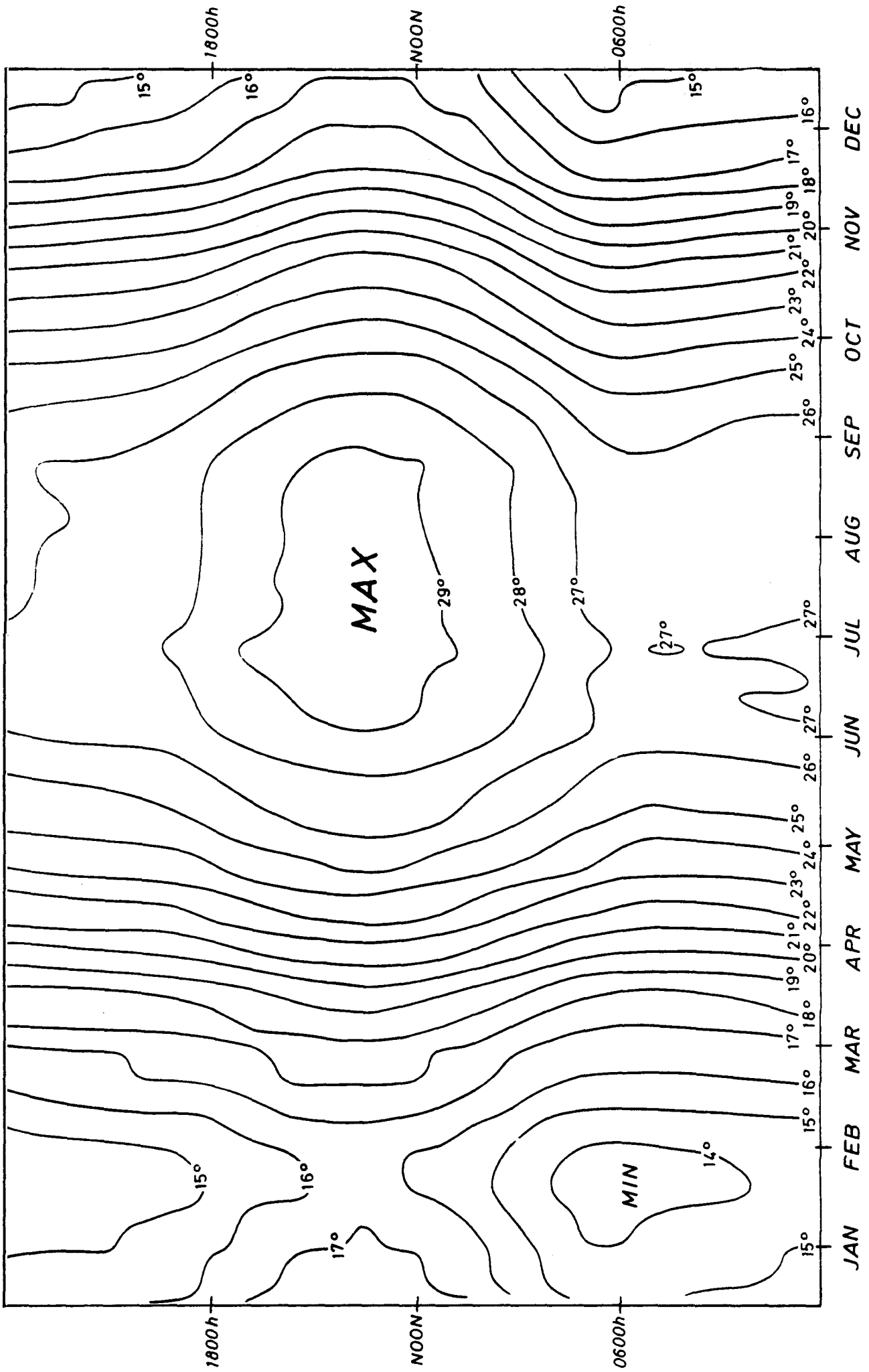


Fig. II VARIATION OF MEAN TEMPERATURES (°C) AT THE ROYAL OBSERVATORY (1884 - 1939 AND 1947 - 1960)

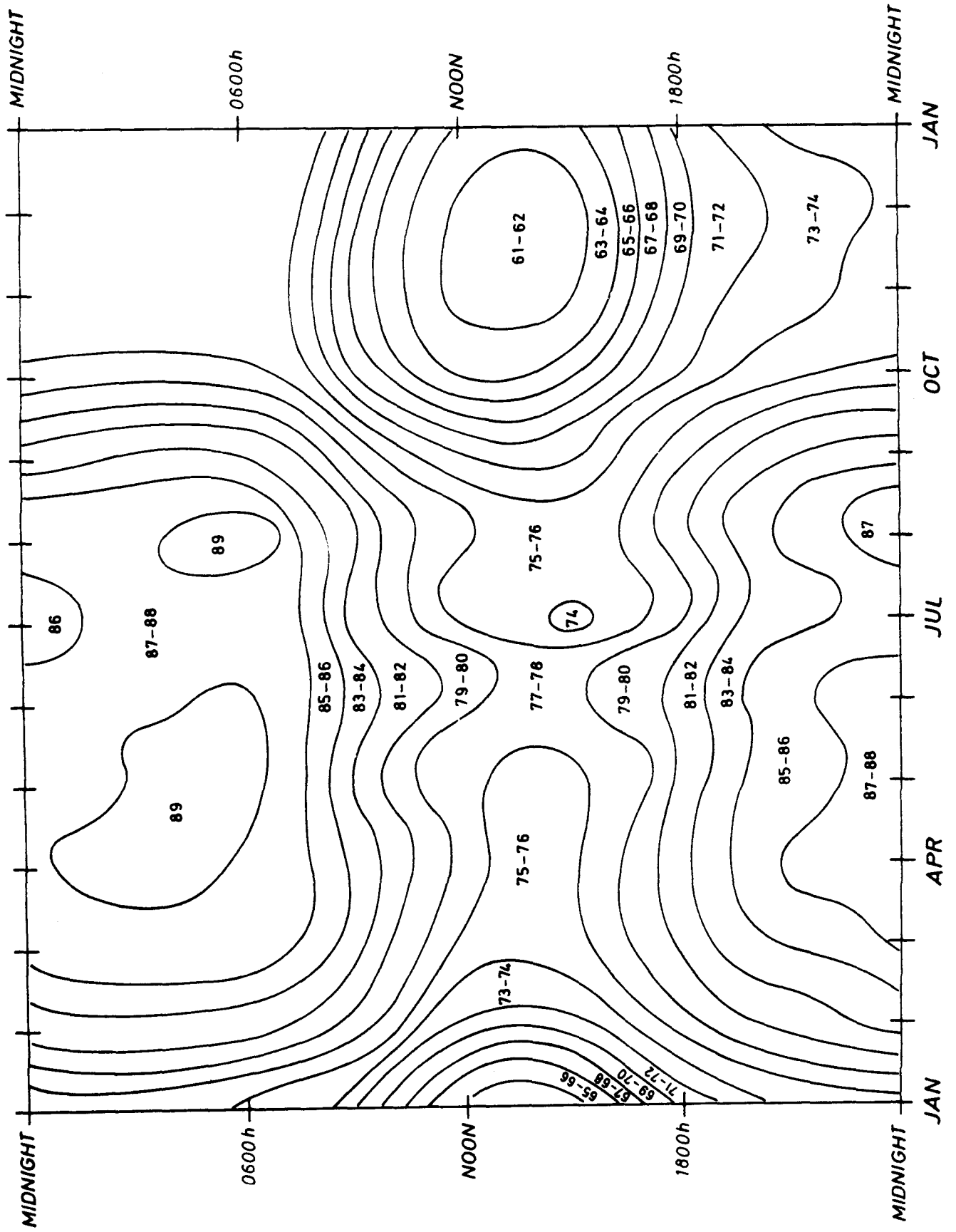


Fig. III VARIATION OF MEAN RELATIVE HUMIDITY (%) AT ROYAL OBSERVATORY, HONG KONG 1947 - 1970

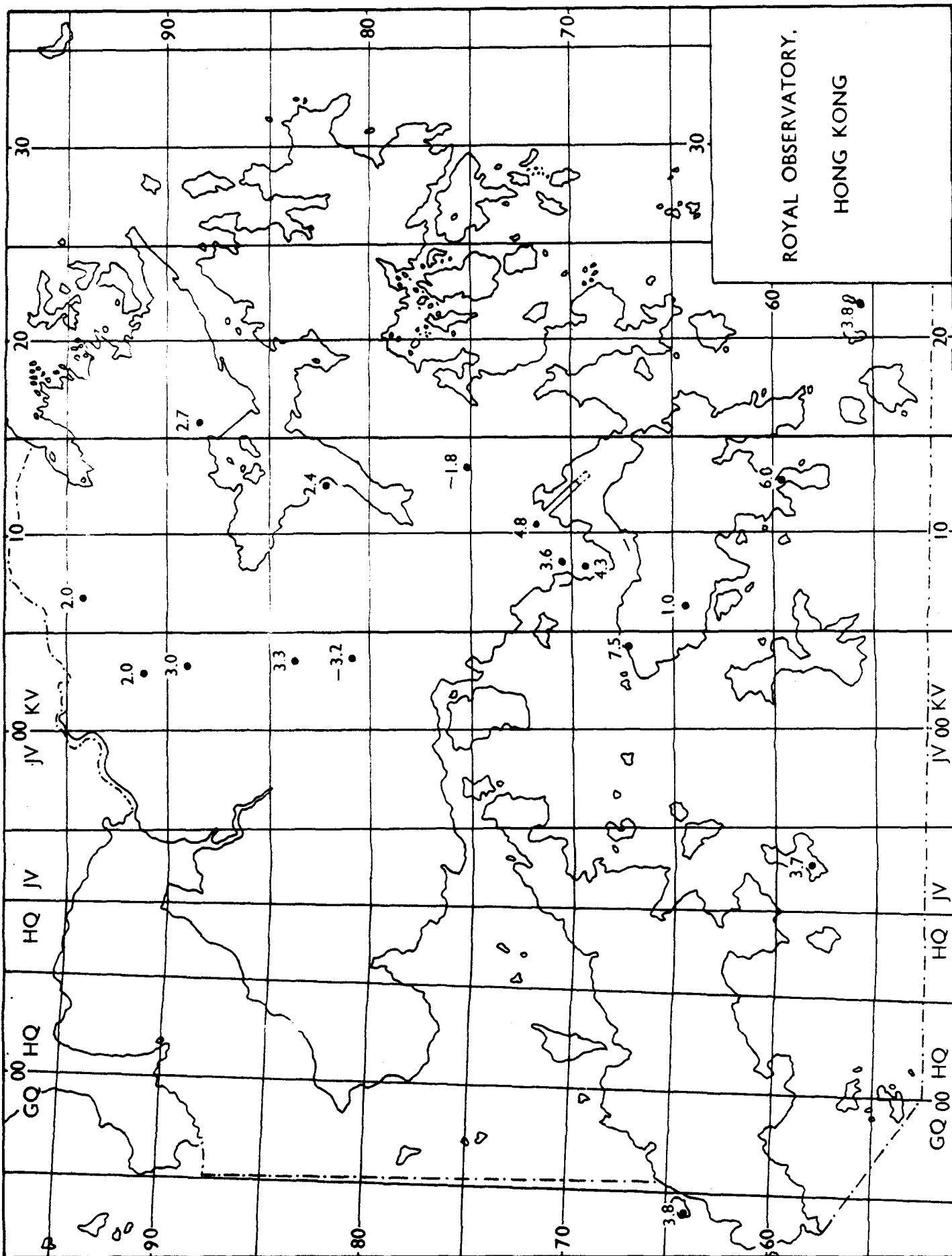


Fig. IV MINIMUM AIR TEMPERATURES (°C) ON 14-15 DECEMBER 1975

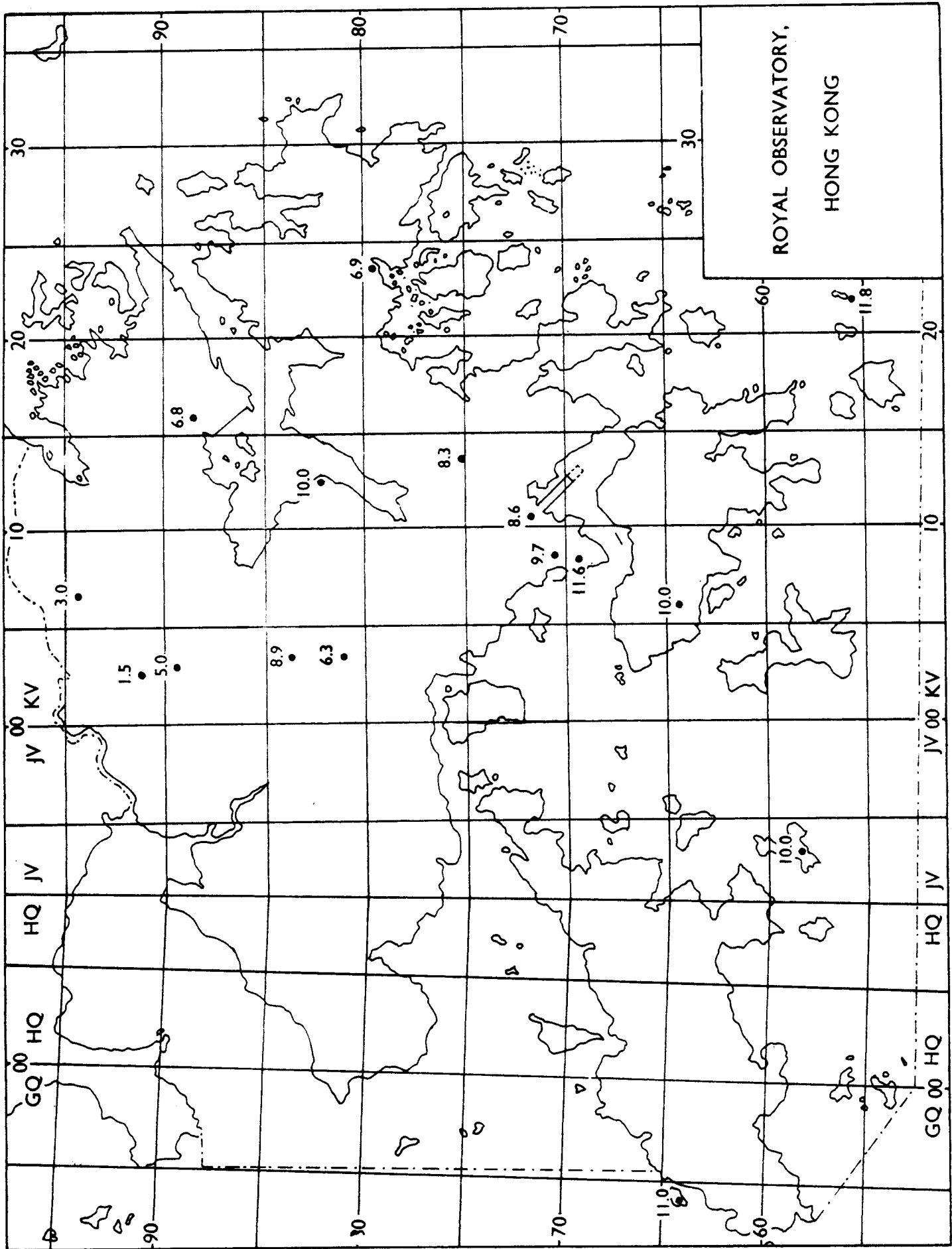


Fig. V MINIMUM AIR TEMPERATURES (°C) ON 14 JANUARY 1976