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## Bulletin for the Year 1990: Meteorological Observatory of the University of Naples Federico II

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### Abstract

This report contains the meteorological bulletin for the year 1990. The data were measured at the Meteorological Observatory of the University of Naples Federico II located in Largo San Marcellino, 10, in the Historic Center of Naples.

The weather report is organized as follows:

- a meteorological report for the year 1990;
- 12 monthly reports and annual trends with monthly averages;
- a cataloging of the average daily values and related graphs, for each month, with an indication of the extreme values recorded.

**Keywords:** Meteorological bulletin; Historical Center of Naples

### Riassunto

Questo rapporto contiene il bollettino meteorologico per l'anno 1990. I dati sono stati rilevati presso l'Osservatorio Meteorologico dell'Università degli Studi di Napoli Federico II situato in Largo San Marcellino, 10, nel Centro Storico di Napoli.

Il bollettino meteorologico è così organizzato:

- un rapporto meteorologico per l'anno 1990;
- 12 rapporti mensili e tendenze annuali con medie mensili;
- una catalogazione dei valori medi giornalieri e dei relativi grafici, per ogni mese, con l'indicazione dei valori estremi registrati.

**Parole chiave:** Bollettino meteorologico; Centro Storico di Napoli

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## Introduction

The Campania coast of Caserta, Naples, Salerno is characterized by a Mediterranean climate. It has mild and rainy winters and hot and dry summers. The most inland and mountainous areas of Campania are characterized by a more continental and rigid climate. In the province of Naples the Min/Max temperature ranges roughly from 4°C/12°C in January to 18°C/30°C in August and the annual mean temperature is 11°C/20°C. The rain varies roughly from 50/100 mm in summer (June, July and August) to 400 mm in Autumn (October, November and December); the mean annual rain amount is roughly 800-1000 mm. The relative humidity varies between 55% and 70%. Much of the Campania coast is exposed to humid westerly or south-westerly winds. In the urban center of Naples the temperatures could be 1 or 2 °C warmer than the surrounding rural regions because of the local urban heat island (Palumbo and Mazzarella, 1981, 1984; Fortelli et al., 2016). The *Osservatorio Meteorologico Federiciano* (Meteorological Observatory of the University of Naples Federico II) is currently annexed to the *Dipartimento di Scienze della Terra, dell'Ambiente e delle Risorse* (DiSTAR, <http://www.distar.unina.it>) and is located in the historical center of Naples, Italy, in Largo San Marcellino n. 10 (Fig. 1). General information about the Meteorological Observatory, recent research activity and the meteorological daily records collected since

2011 are available at the observatory website at: <http://www.meteo.unina.it>.

The Observatory was established as a *Specola Universitaria* according to a dictatorial decree of Giuseppe Garibaldi, on October 29<sup>th</sup>, 1860, at the request of Prof. Luigi Palmieri who was the first professor of Meteorology in the united Italy. The Specola was located on the terrace "A" of the former *Istituto di Zoologia*.

With the death of Palmieri, on September 9<sup>th</sup>, 1896, the Specola was directed by prof. Eugenio Semmola until 1902, the year in which it took the name of *Osservatorio Meteorologico*, directed by prof. Emilio Villari and from 1905 by prof. Ciro Chistoni. In the same year the prof. Chistoni transformed the *Osservatorio Meteorologico* into the *Istituto di Fisica Terrestre*.

In 1908, due to the partial collapse of the Specola, Chistoni moved the *Osservatorio Meteorologico* to San Marcellino. Chistoni placed in the garden of the cloister "B", protected by a meteorological roof of his own invention, the minimum and maximum thermometers, the Asmann vacuum psychrometer and the thermo-hygrograph. On the terrace "C" of the building above the cloister, he placed the anemometer, the pluviometer, and the solar radiation and atmospheric radioactivity devices. In 1970 all the instruments placed in the cloister garden were moved to the "C" terrace inside a meteorological screen. In 1972 the *Istituto di Fisica Terrestre* merged into the new *Istituto di Geologia e Geofisica*.



**Figure 1:** Historic sites of the Meteorological Observatory of San Marcellino. A) Terrace of the former Istituto di Zoologia (1860-1908); B) Garden inside the Cloister of San Marcellino (1908-1970). C) Terrace below the DiSTAR tower (1970-1980). D) Terrace on DiSTAR tower (1980-date), detailed in box below.

Following the University's reform of 1980, part of the *Istituto di Geologia e Geofisica* became the *Dipartimento di Geofisica e Vulcanologia*. The tower of the same was renovated and all the meteorological instruments were moved to its terrace "D" together with a new SIAP automatic meteorological station, which began to record the same variables. In 2000 the *Dipartimento di Geofisica e Vulcanologia* merged with the *Dipartimento di Scienze della Terra* to form the current DiSTAR and

the SIAP was replaced with the SIAP-MICROS meteorological automatic station.

Currently on the tower of the building of San Marcellino (lat.  $40^{\circ} 50'49''$  N; long  $14^{\circ} 15'28''$  E, 50 m asl) three automatic stations are operational (SIAP-MICROS, DAVIS Vantage Pro 2, CAMPBELL). They manage the following weather sensors with a frequency of 10 minutes to measure: air temperature ( $^{\circ}$ C); atmospheric pressure (hPa); relative humidity (%); wind speed (m/s); wind direction ( $^{\circ}$ North); precipitation

(mm); global and direct solar radiation (W/m<sup>2</sup>); UV index (0-11).

The Meteorological Observatory of San Marcellino keeps data since 1872. From 1872 to 1980 the data were transcribed regularly for each day at 9.00, 15.00 and at 20.00 on dedicated registers. These registers also show the observer's annotations regarding thunders, city smog, Vesuvio's plume, etc. From 1980 to 2000, the data were automatically detected by the SIAP station and reported on special bulletins of the University of Naples Federico II for each year, although the data from 1980 to 1989 are largely incomplete. From 2004 onwards the meteorological bulletins have been published in the *Rendiconto dell'Accademia delle Scienze Fisiche e Matematiche*.

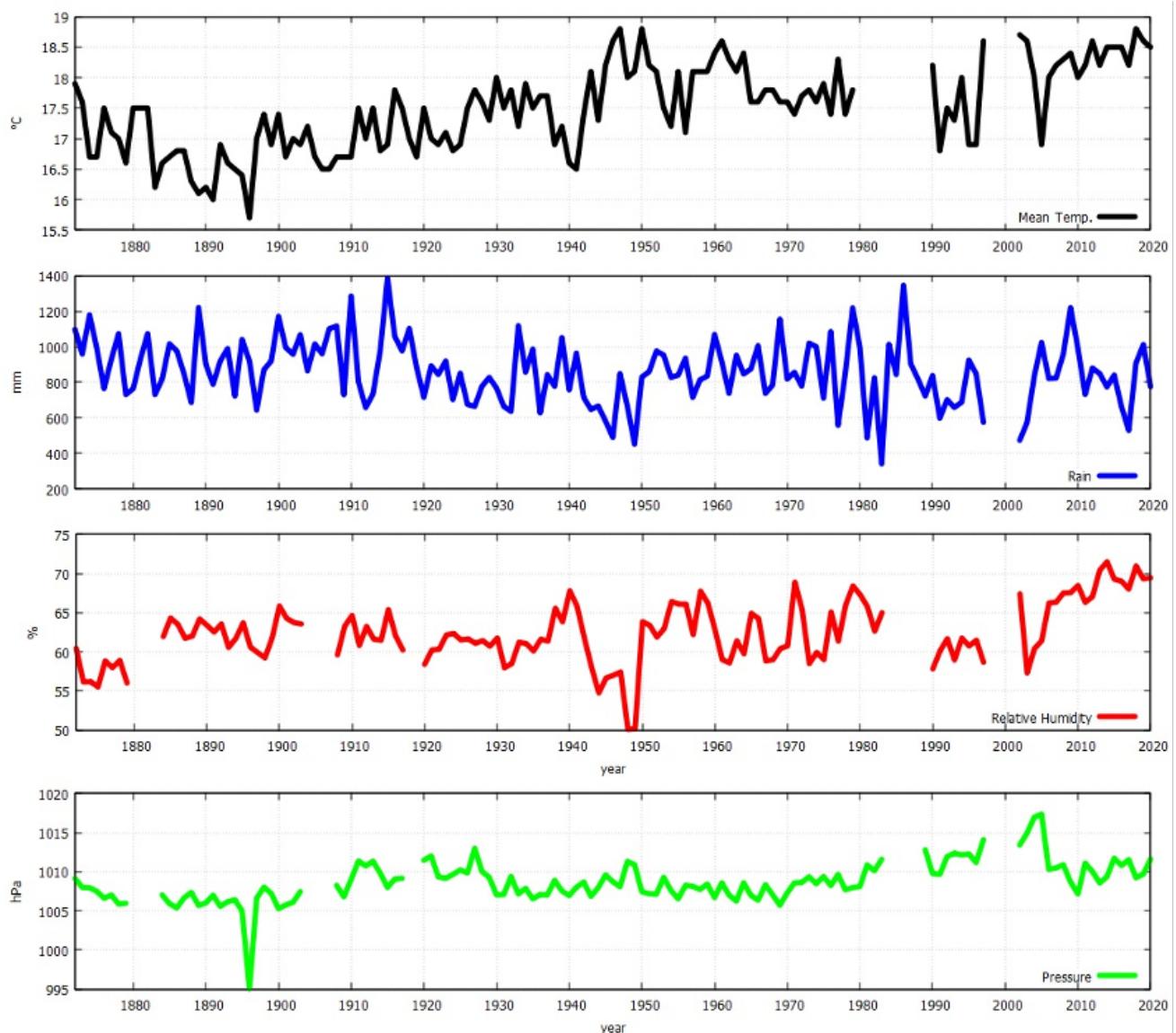
The Observatory owns a collection of meteorological manual instruments used in the 20<sup>th</sup> century (barometer of Fortin, microbarograph, thermograph, pluviometer, various thermometers, and some anemometer) which could be used also for periodical and manual comparison operations with the automatic measurements.

Figure 2 shows how the climate has changed in Naples since 1872 to 2020. The figure depicts the annual means of the temperature (T), rain amount (R), relative humidity (RH) and atmospheric pressure (P) recorded at the *Osservatorio Meteorologico Federiciano* from 1872 to 2020. The mean meteorological values during the entire observational period were: T = 17.5 °C; R = 837 mm; RH = 62.3%; P = 1008.7 hPa. The mean meteorological values during the 30-year period 1872-1901 (usually referred to as the *pre-industrial* period) were: T = 16.8 °C; R = 922.7 mm; RH = 61%; P = 1006.2 hPa. The mean meteorological values during the

30-year period 1941-1970 were: T = 17.9 °C; R = 817.4 mm; RH = 60.9%; P = 1007.9 hPa. The mean meteorological values during the latest 30 years, from 1991 to 2020, were: T = 18.1 °C; R = 795.5 mm; RH = 65.3%; P = 1011.4 hPa; while the mean meteorological values during the latest 11 years, from 2010 to 2020, were: T = 18.4 °C; R = 814.3 mm; RH = 69.1%; P = 1010.1 hPa. Thus, since 1872 historical center of Naples has experienced a warming by 1.3 °C (or 1.6 °C using the latest 11-year period) while the rain amount decreased by 127.2 mm (or 108 mm using the latest 11-year period).

Thus, since the pre-industrial period, Naples has experienced a climatic change that has been characterized by a secular warming and a reduction of rain amount (which is confirmed also by the slight increase of the atmospheric pressure). However, also the period from 1941 to 1970 was relatively warm. Actually, in the middle of the 20<sup>th</sup> century, the mean temperatures were nearly as warm as during the latest decades. In fact, during the entire observational period, the hottest years were 1947, 1950 and 2018 with an annual mean temperature of 18.8 °C. Most of the warming occurred during the first half of the 20<sup>th</sup> century, while the second half of the 20th century was characterized by an initial slight cooling until 1980, followed by a warming from 1990 to 2020, which could also reveal an oscillatory pattern found in other global and local meteorological data, in particular where a warming bias due to urbanization development is missing (cf.: Scafetta 2013, 2021; Scafetta and Ouyang, 2019).

The present work aims to provide to the public the meteorological daily data collected at the Observatory of San Marcelino in the year 1990. These data were



**Figure 2:** Annual mean of the main meteorological records collected at the historic sites of the Meteorological Observatory of San Marcellino.

currently available only on paper and published as *Dati Meteorologici dell'Università degli Studi di Napoli Federico II* prepared by Gennaro Scarano and published by the *Dipartimento di Geofisica e Vulcanologia*. The digitization of the data were conducted by the students Alessandro Gambardella and Mauro Rea during their internship in meteorology and climatology.

## Bulletin 1990: details

This bulletin contains the results of the meteorological observations, relating to the

period 1 January 1990 - 31 December 1990 carried out at the Meteorological Observatory of the Department of Earth Sciences, Environment and Georesources (former department of Geophysics and Volcanology) of the University of Naples "Federico II" located in Largo San Marcellino in the Historic Center of Naples.

The coordinates of the station are: Lat. 40 ° 50'48 " North Long. 14°15'31 " East, Altitude 50 m a.s.l.

The data were obtained by means of a SIAP automatic station equipped with the following sensors:

- TM7720 temperature 830111 (°C);
- atmospheric pressure PA 5750 N.952100 (units mmHg; 1 mmHg = 1333 hPa);
- relative humidity UM 9730 N.932026 (units %);
- wind speed VT 7705 N.900721 (m/s);
- wind direction VT7710 N.901662;
- precipitation Mod. UM 7515 N.967069 (mm);
- solar radiation Mod. SO 3700 N.871218 (Langley/min; 1 Langley/min = 697.8 W/m<sup>2</sup>).

The data were acquired every 30 minutes and sampled on an IBM PS / 2 MOD Personal Computer 8560/41.

## Annual weather report

From the analysis of all the weather parameters of the year 1990 the following emerges:

- (a) the average monthly air temperature oscillates between 9.7 °C in December and 26.9 °C in July, with an annual average of 18.2 °C, with an absolute minimum of 3.0 °C recorded on December 27 and with an absolute maximum 34.8 °C recorded on July 22;
- (b) the monthly average relative humidity oscillates between 51.3% in May and 67.3% in October, with an annual average of 57.8%, with an absolute minimum of 14.5% recorded on January 31 and with an absolute maximum of 92.6% recorded on February 26;
- (c) the monthly average atmospheric pressure oscillates between 754.7 mmHg in April and 766.8 mmHg in January, with an annual average of 759.2 mmHg, with an absolute minimum of 732.4 mmHg recorded on February 26 and with an absolute

maximum of 775.2 mmHg recorded on February 11 and 12;

(d) the monthly average wind intensity oscillates between 1.8 m/s in January and September and 2.7 m/s in November, with an annual average of 2.2 m/s and with the most intense gust of 23.6 m/s recorded on December 9;

(e) the wind direction presents a main orientation from the South in January, February, March, May, June, July, August, September, October, November and December and from the South-West in April;

(f) the monthly cumulative rainfall oscillates between 0 mm in June and 192.2 mm in April, with a cumulative annual value of 794.0 mm and with an absolute daily maximum of 66.4 mm recorded on April 29.

(g) the solar radiation was missing in January, February, March April and December.

## Monthly weather reports

### January

Average monthly temperature: 10.2 °C; Maximum average temperature 11.6 °C on day 11; Minimum average temperature 7.7 °C. on day 26.

Average monthly humidity: 54.6%; Maximum average humidity 70.8% on day 22; Minimum average humidity 30.4% on day 31.

Monthly mean atmospheric pressure: 766.5 mmHg; Maximum mean pressure 771.0 mmHg on day 7; Minimum mean pressure 758.1 mmHg on day 22.

Average monthly wind speed: 1.8 m/s; Maximum average wind 3.5 m/s on day 24; Minimum average wind on day 1.1 m/s on days 10 and 21.

Monthly rainfall: 23.2 mm.

Average solar radiation: N.P.

Maximum temperature: 17.0 °C on day 31;  
 Minimum temperature: 5.8 °C on day 20.  
 Maximum humidity: 80.3% on day 22;  
 Minimum humidity: 14.5% on day 31.  
 Maximum atmospheric pressure: 772.4 mmHg on day 7; Minimum pressure: 756.3 mmHg on day 22.  
 Maximum wind: 9.8 m/s on day 2.  
 Maximum rainfall: 18.6 mm on day 22.

### **February**

Average monthly temperature: 11.6 °C;  
 Maximum average temperature 14.6 °C on day 24; Minimum average temperature 9.1 °C. on day 16.  
 Average monthly humidity: 56.7%; Maximum average humidity 76.6% on day 25; Minimum average humidity 37.3% on day 14.  
 Monthly mean atmospheric pressure: 763.4 mmHg; Maximum mean pressure 773.9 mmHg on day 12; Minimum mean pressure 736.6 mmHg on day 26.  
 Average monthly wind speed: 2.3 m/s; Maximum average wind 5.4 m/s on days 26 and 27; Minimum average wind on day 1.0 m/s on day 21.  
 Monthly rainfall: 75.2 mm.  
 Average solar radiation: N.P.

Maximum temperature: 18.4 °C on day 24;  
 Minimum temperature: 5.5 °C on day 16.  
 Maximum humidity: 92.6% on day 26;  
 Minimum humidity: 14.8% on day 14.  
 Maximum atmospheric pressure: 775.2 mmHg on days 11 and 12; Minimum pressure: 732.4 mmHg on day 26.  
 Maximum wind: 17.2 m/s on day 26.  
 Maximum rainfall: 33.4 mm on day 26.

### **March**

Average monthly temperature: 15.0 °C;  
 Maximum average temperature 19.3 °C on day 31; Minimum average temperature 11.6 °C. on day 9.  
 Average monthly humidity: 54.1%; Maximum average humidity 76.1% on day 3; Minimum average humidity 29.6% on day 25.  
 Monthly mean atmospheric pressure: 758.3 mmHg; Maximum mean pressure 764.4 mmHg on day 30; Minimum mean pressure 749.3 mmHg on day 21.  
 Average monthly wind speed: 2.2 m/s; Maximum average wind 4.1 m/s on day 24; Minimum average wind on day 1.2 m/s on day 18.  
 Monthly rainfall: 26.6 mm.  
 Average solar radiation: N.P.

Maximum temperature: 25.5 °C on day 31;  
 Minimum temperature: 8.9 °C on day 8.  
 Maximum humidity: 87.9% on day 1;  
 Minimum humidity: 19.7% on day 26.  
 Maximum atmospheric pressure: 765.4 mmHg on day 30; Minimum pressure: 748.1 mmHg on day 21.  
 Maximum wind: 10.6 m/s on day 24.  
 Maximum rainfall: 18.8 mm on day 9.

### **April**

Average monthly temperature: 16.1 °C;  
 Maximum average temperature 20.1 °C on day 26; Minimum average temperature 11.9 °C. on days 14 and 29.  
 Average monthly humidity: 55.7%; Maximum average humidity 75.4% on day 29; Minimum average humidity 36.8% on day 10.  
 Monthly mean atmospheric pressure: 754.7 mmHg; Maximum mean pressure 762.3 mmHg on day 7; Minimum mean pressure 747.2 mmHg on day 13.

Average monthly wind speed: 2.5 m/s; Maximum average wind 4.5 m/s on day 5; Minimum average wind on day 1.4 m/s on day 10.

Monthly rainfall: 192.2 mm.

Average solar radiation: N.P.

Maximum temperature: 25.7 °C on day 10; Minimum temperature: 9.3 °C on day 18.

Maximum humidity: 88.2% on day 17; Minimum humidity: 20.9% on day 25.

Maximum atmospheric pressure: 763.8 mmHg on day 7; Minimum pressure: 744.6 mmHg on day 4.

Maximum wind: 15.8 m/s on day 3.

Maximum rainfall: 66.4 mm on day 29.

### **May**

Average monthly temperature: 19.5 °C; Maximum average temperature 23.0 °C on day 12; Minimum average temperature 13.4 °C. on days 1 and 2.

Average monthly humidity: 51.3%; Maximum average humidity 66.9% on day 14; Minimum average humidity 32.6% on day 8.

Monthly mean atmospheric pressure: 759.0 mmHg; Maximum mean pressure 761.0 mmHg on day 30; Minimum mean pressure 752.2 mmHg on day 13.

Average monthly wind speed: 2.2 m/s; Maximum average wind 3.3 m/s on day 24; Minimum average wind on day 1.4 m/s on day 11.

Monthly rainfall: 26.8 mm.

Average solar radiation: 0.4

Maximum temperature: 28.5 °C on day 12; Minimum temperature: 10.5 °C on day 2.

Maximum humidity: 85.7% on day 31; Minimum humidity: 22.0% on day 7.

Maximum atmospheric pressure: 761.6 mmHg on days 19 and 25; Minimum pressure: 750.7 mmHg on days 12 and 13. Maximum wind: 9.6 m/s on days 21 and 23. Maximum rainfall: 14.0 mm on day 1.

### **June**

Average monthly temperature: 24.3 °C; Maximum average temperature 28.3 °C on day 26; Minimum average temperature 20.8 °C. on days 1 and 3.

Average monthly humidity: 56.9%; Maximum average humidity 68.7% on day 8; Minimum average humidity 33.6% on day 1.

Monthly mean atmospheric pressure: 757.6 mmHg; Maximum mean pressure 761.9 mmHg on day 1; Minimum mean pressure 751.4 mmHg on day 4.

Average monthly wind speed: 2.1 m/s; Maximum average wind 3.4 m/s on day 9; Minimum average wind on day 1.3 m/s on days 19 and 20.

Monthly rainfall: 0.0 mm.

Average solar radiation: 0.4

Maximum temperature: 33.0 °C on day 26; Minimum temperature: 16.1 °C on day 1.

Maximum humidity: 87.1% on day 7; Minimum humidity: 25.3% on day 1.

Maximum atmospheric pressure: 762.9 mmHg on day 1; Minimum pressure: 748.2 mmHg on day 4.

Maximum wind: 10.1 m/s on day 12.

Maximum rainfall: 0.0 mm.

### **July**

Average monthly temperature: 26.9 °C; Maximum average temperature 29.3 °C on days 28 and 29; Minimum average temperature 24.8 °C. on day 6.

Average monthly humidity: 56.4%; Maximum average humidity 73.8% on day 24;

Minimum average humidity 37.3% on day 22.

Monthly mean atmospheric pressure: 757.8 mmHg; Maximum mean pressure 761.4 mmHg on day 29; Minimum mean pressure 755.2 mmHg on day 2.

Average monthly wind speed: 1.9 m/s; Maximum average wind 2.8 m/s on day 19; Minimum average wind on day 1.1 m/s on day 30.

Monthly rainfall: 1.1 mm.

Average solar radiation: 0.4 Langley/min.

Maximum temperature: 34.8 °C on day 22; Minimum temperature: 21.8 °C on day 20.

Maximum humidity: 86.9% on day 23; Minimum humidity: 27.5% on day 8.

Maximum atmospheric pressure: 762.2 mmHg on day 29; Minimum pressure: 754.7 mmHg on days 2 and 4.

Maximum wind: 8.3 m/s on day 19.

Maximum rainfall: 1.1 mm on day 31.

### **August**

Average monthly temperature: 26.3 °C; Maximum average temperature 29.7 °C on day 3; Minimum average temperature 20.8 °C on day 22.

Average monthly humidity: 56.1%; Maximum average humidity 74.5% on day 21; Minimum average humidity 38.1% on day 10.

Monthly mean atmospheric pressure: 759.1 mmHg; Maximum mean pressure 761.5 mmHg on day 24; Minimum mean pressure 756.9 mmHg on day 22.

Average monthly wind speed: 1.9 m/s; Maximum average wind 3.6 m/s on day 22; Minimum average wind on day 1.3 m/s on day 31.

Monthly rainfall: 59.4 mm.

Average solar radiation: 0.4 Langley/min.

Maximum temperature: 34.4 °C on day 4; Minimum temperature: 18.3 °C on day 22.

Maximum humidity: 90.0% on day 7; Minimum humidity: 28.0% on day 5.

Maximum atmospheric pressure: 762.6 mmHg on day 24; Minimum pressure: 754.5 mmHg on day 22.

Maximum wind: 12.0 m/s on day 23.

Maximum rainfall: 32.6 mm on day 8.

### **September**

Average monthly temperature: 23.3 °C; Maximum average temperature 25.8 °C on day 2; Minimum average temperature 20.3 °C on day 29.

Average monthly humidity: 61%; Maximum average humidity 74% on days 18 and 23; Minimum average humidity 39% on day 28.

Monthly mean atmospheric pressure: 758.9 mmHg; Maximum mean pressure 764.9 mmHg on day 29; Minimum mean pressure 753.8 mmHg on day 21.

Average monthly wind speed: 1.8 m/s; Maximum average wind 3.3 m/s on days 24 and 28; Minimum average wind on day 1.1 m/s on day 30.

Monthly rainfall: 54.0 mm.

Average solar radiation: 0.3 Langley/min.

Maximum temperature: 29.8 °C on day 26; Minimum temperature: 16.3 °C on day 29.

Maximum humidity: 88.8% on day 18; Minimum humidity: 26.3% on day 28.

Maximum atmospheric pressure: 765.8 mmHg on day 29; Minimum pressure: 752.5 mmHg on day 21.

Maximum wind: 8.0 m/s on day 5.

Maximum rainfall: 33.4 mm on day 18.

### **October**

Average monthly temperature: 20.9 °C; Maximum average temperature 25.9 °C on

day 14; Minimum average temperature 15.5 °C. on day 23.

Average monthly humidity: 67.3%; Maximum average humidity 83.0% on day 31; Minimum average humidity 45.5% on day 25.

Monthly mean atmospheric pressure: 758.3 mmHg; Maximum mean pressure 764.8 mmHg on day 12; Minimum mean pressure 748.6 mmHg on day 29.

Average monthly wind speed: 2.0 m/s; Maximum average wind 3.5 m/s on day 9; Minimum average wind on day 1.1 m/s on day 2.

Monthly rainfall: 143.5 mm.

Average solar radiation: 0.2 Langley/min.

Maximum temperature: 30.8 °C on day 14; Minimum temperature: 12.5 °C on day 23.

Maximum humidity: 91.2% on day 31; Minimum humidity: 34.2% on day 13.

Maximum atmospheric pressure: 765.5 mmHg on day 12; Minimum pressure: 746.1 mmHg on day 29.

Maximum wind: 11.6 m/s on day 29.

Maximum rainfall: 46.6 mm on day 7.

### **November**

Average monthly temperature: 15.1 °C; Maximum average temperature 20.8 °C on day 1; Minimum average temperature 11.3 °C. on day 8.

Average monthly humidity: 61.8%; Maximum average humidity 77.7% on day 1; Minimum average humidity 43.4% on day 8.

Monthly mean atmospheric pressure: 758.4 mmHg; Maximum mean pressure 766.0 mmHg on day 10; Minimum mean pressure 752.6 mmHg on day 31.

Average monthly wind speed: 2.7 m/s; Maximum average wind 6.3 m/s on day 23;

Minimum average wind on day 1.5 m/s on day 19.

Monthly rainfall: 96.0 mm.

Average solar radiation: 0.2 Langley/min.

Maximum temperature: 23.1 °C on day 1;

Minimum temperature: 7.4 °C on day 28.

Maximum humidity: 85.7% on day 1; Minimum humidity: 28.3% on day 6.

Maximum atmospheric pressure: 767.3 mmHg on day 11; Minimum pressure: 749.3 mmHg on day 30.

Maximum wind: 11.7 m/s on day 22, 23 and 24.

Maximum rainfall: 18.8 mm on day 27.

### **December**

Average monthly temperature: 9.7 °C; Maximum average temperature 15.7 °C on day 9; Minimum average temperature 6.0 °C. on the days 2, 3 and 7.

Average monthly humidity: 62.2%; Maximum average humidity 74.8% on the days 28 and 31; Minimum average humidity 44.7% on the days 1 and 6.

Monthly mean atmospheric pressure: 758.5 mmHg; Maximum mean pressure 770.0 mmHg on day 30; Minimum mean pressure 740.5 mmHg on day 13.

Average monthly wind speed: 2.7 m/s; Maximum average wind 10.2 m/s on day 9; Minimum average wind on day 0.8 m/s on day 31.

Monthly rainfall: 96.0 mm.

Average solar radiation: N.P.

Maximum temperature: 17.7 °C on the days 9 and 10; Minimum temperature: 3.0 °C on day 27.

Maximum humidity: 86.9% on day 10; Minimum humidity: 33.3% on day 6.

Maximum atmospheric pressure: 771.4 mmHg on day 11; Minimum pressure: 737.8 mmHg on day 13.

Maximum wind: 23.6 m/s on day 9.

Maximum rainfall: 17.6 mm on day 24.

## Conclusion

The attached file contains the tables and figures collecting daily meteorological data for each month for the year 1990. The reported observables are:

- Temperature - mean, max and min;
- Relative Humidity - mean, max and min;
- Atmospheric pressure - mean, max and min; Wind - mean speed, mean direction, maximum speed;
- Solar radiation;
- Rain.

The meteorological records are provided for general use.

## Author contributions

Collection of data: A.G. and M.R.; Writing – original draft (in Italian): A.G. and M.R.; Writing – final draft preparation (in English): N.S. Figures and Tables curation: N.S.; Checked the data and the final draft: R.V.

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**Supplementary material:** The annual summary of meteorological data for the year 1990 and collecting daily meteorological data for each month for the year 1990.

Each data set consisted of two tables and a six-paneled figures:

**Table A:** Mean temperature; Mean relative humidity; mean atmospheric pressure; mean wind speed and direction; solar radiation; rain.

**Table B:** Min and max temperature; min and max relative humidity; min and max atmospheric pressure; max wind speed.

**Figure:** **panel 1**, temperature - mean, max and min; **panel 2**, relative humidity - mean, max and min; **panel 3**, atmospheric pressure - mean, max and min; **panel 4**, wind - mean speed, maximum speed; **panel 5**, rain; **panel 6**, wind direction.

## Annual Means

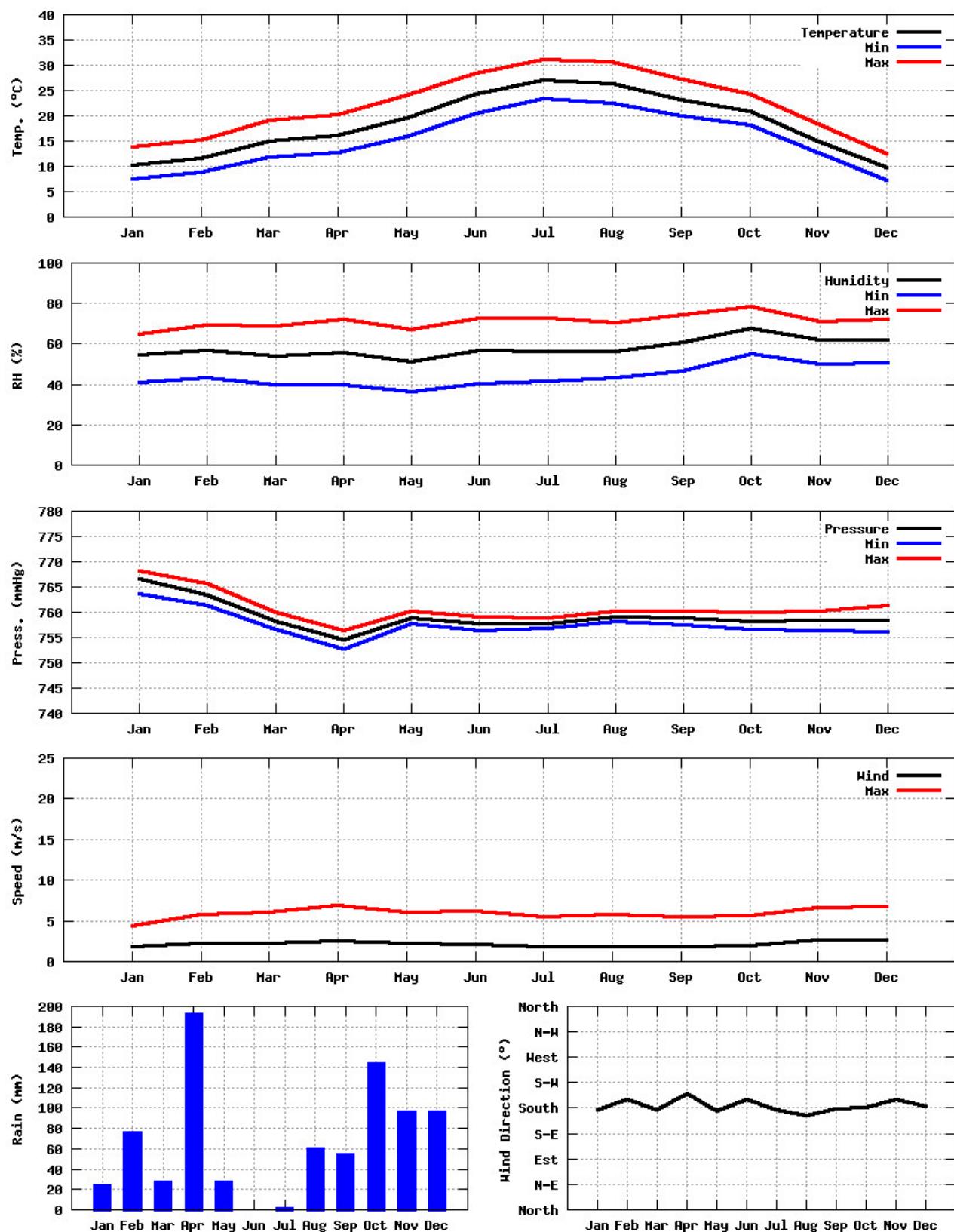
**Table A**

Month	Temperature		Humidity		Pressure		Wind		Monthly Means	
	°C	%	mmHg	m/s	dir.	langley/min	mm			
Jan	10.2	54.6	766.5	1.8	177	NP	23.2			
Feb	11.6	56.7	763.4	2.3	195	NP	75.2			
Mar	15.0	54.1	758.3	2.2	178	NP	26.6			
Apr	16.1	55.7	754.7	2.5	206	NP	192.2			
May	19.5	51.3	759.0	2.2	175	0.4	26.8			
Jun	24.3	56.9	757.6	2.1	196	0.4	0.0			
Jul	26.9	56.4	757.8	1.9	178	0.4	1.1			
Aug	26.3	56.1	759.1	1.9	167	0.4	59.4			
Sep	23.3	61.0	758.9	1.8	180	0.3	54.0			
Oct	20.9	67.3	758.3	2.0	180	0.2	143.5			
Nov	15.1	61.8	758.4	2.7	196	0.2	96.0			
Dec	9.7	62.2	758.5	2.7	182	NP	96.0			
mean	18.3	57.9	759.2	2.2	184	NP	66.2			
max	26.9	67.3	766.5	2.7	206	NP	192.2			
min	9.7	51.3	754.7	1.8	167	NP	0.0			
sum							794.0			

**Table B**

Month	daily extreme						
	Temperature		Humidity		Pressure		Wind
	°C	%	mmHg	m/s	max		
	min	max	min	max	min	max	max
Jan	5.8	17.0	14.5	80.3	756.3	772.4	9.8
Feb	5.5	18.4	14.8	92.6	732.4	775.2	17.2
Mar	8.9	25.5	19.7	87.9	748.1	765.4	10.6
Apr	9.3	25.7	20.9	88.2	744.6	763.8	15.8
May	10.5	28.5	22.0	85.7	750.7	761.6	9.6
Jun	16.1	33.0	25.3	87.1	748.2	762.9	10.1
Jul	21.8	34.8	27.5	86.9	754.7	762.2	8.3
Aug	18.3	34.4	28.0	90.0	754.5	762.6	12.0
Sep	16.3	29.8	26.3	88.8	752.5	765.8	8.0
Oct	12.5	30.8	34.2	91.2	746.1	765.5	11.6
Nov	7.4	23.1	28.3	85.7	749.3	767.3	11.7
Dec	3.0	17.7	33.3	86.9	737.8	771.4	23.6
mean	11.3	26.6	24.6	87.6	747.9	766.3	12.4
max	21.8	34.8	34.2	92.6	756.3	775.2	23.6
min	3.0	17.0	14.5	80.3	732.4	761.6	8.0

## Annual Means



## January

**Table A**

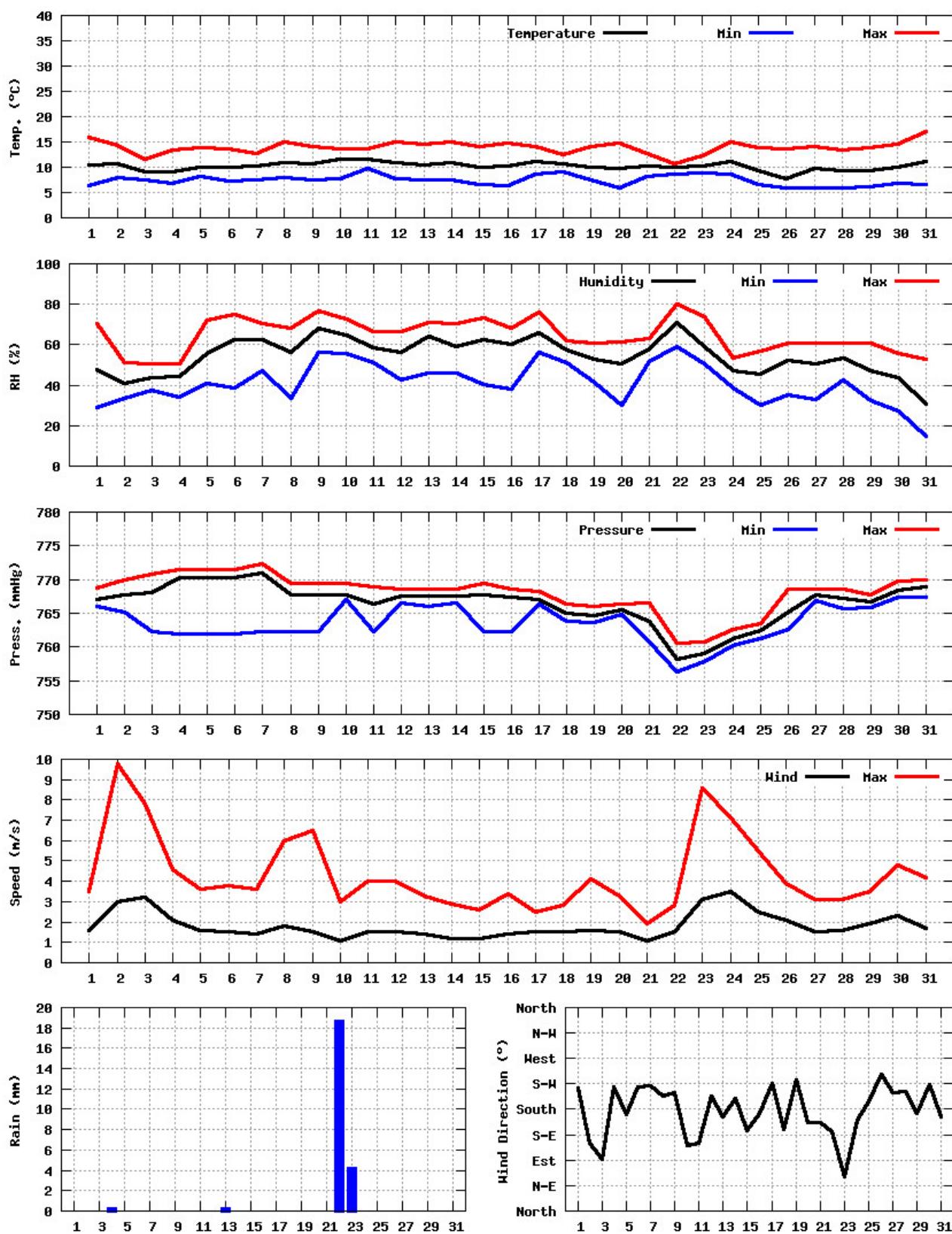
Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Rain mm	Daily Means
				m/s	dir.			
1/1/1990	10.5	47.6	767.1	1.6	217	NP	0	
1/2/1990	10.6	41.0	767.8	3.0	120	NP	0	
1/3/1990	9.0	43.9	768.1	3.2	91	NP	0	
1/4/1990	9.2	44.4	770.2	2.1	220	NP	0.2	
1/5/1990	9.9	55.9	770.2	1.6	170	NP	0	
1/6/1990	9.9	62.7	770.2	1.5	220	NP	0	
1/7/1990	10.3	62.6	771.0	1.4	222	NP	0	
1/8/1990	10.8	56.3	767.7	1.8	203	NP	0	
1/9/1990	10.6	68.1	767.7	1.5	210	NP	0	
1/10/1990	11.5	64.8	767.8	1.1	116	NP	0	
1/11/1990	11.6	58.8	766.4	1.5	121	NP	0	
1/12/1990	10.8	56.3	767.5	1.5	204	NP	0	
1/13/1990	10.4	64.0	767.5	1.4	167	NP	0.2	
1/14/1990	10.8	59.0	767.5	1.2	199	NP	0	
1/15/1990	10.0	62.4	767.7	1.2	143	NP	0	
1/16/1990	10.2	60.3	767.4	1.4	173	NP	0	
1/17/1990	11.1	65.9	767.1	1.5	226	NP	0	
1/18/1990	10.7	57.4	765.0	1.5	145	NP	0	
1/19/1990	10.1	53.0	764.6	1.6	231	NP	0	
1/20/1990	9.8	50.5	765.5	1.5	156	NP	0	
1/21/1990	10.3	57.9	763.8	1.1	156	NP	0	
1/22/1990	10.0	70.8	758.1	1.5	140	NP	18.6	
1/23/1990	10.3	59.3	759.1	3.1	62	NP	4.2	
1/24/1990	11.1	47.1	761.2	3.5	161	NP	0	
1/25/1990	9.4	45.6	762.5	2.5	193	NP	0	
1/26/1990	7.7	52.1	765.1	2.1	242	NP	0	
1/27/1990	9.7	50.3	767.8	1.5	209	NP	0	
1/28/1990	9.3	53.4	767.2	1.6	212	NP	0	
1/29/1990	9.3	47.1	766.7	1.9	172	NP	0	
1/30/1990	10.1	43.6	768.4	2.3	223	NP	0	
1/31/1990	11.2	30.4	768.9	1.7	166	NP	0	
mean	10.2	54.6	766.5	1.8	177	NP	1	
max	11.6	70.8	771.0	3.5	242	NP	18.6	
min	7.7	30.4	758.1	1.1	62	NP	0.0	
cum							23.2	

## January

Table B

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s	daily extreme
	min	max	min	max	min	max		
1/1/1990	6.3	15.8	28.7	70.6	766.0	768.8	3.5	
1/2/1990	8.0	14.3	33.5	51.4	765.1	769.9	9.8	
1/3/1990	7.5	11.7	37.7	50.3	762.3	770.8	7.8	
1/4/1990	6.8	13.3	33.9	50.5	762.0	771.4	4.6	
1/5/1990	8.2	13.8	40.8	72.2	762.0	771.4	3.6	
1/6/1990	7.3	13.6	38.9	75.0	762.0	771.4	3.8	
1/7/1990	7.5	12.7	46.9	70.6	762.3	772.4	3.6	
1/8/1990	7.9	15.0	33.8	67.9	762.3	769.5	6.0	
1/9/1990	7.4	14.1	56.2	76.7	762.3	769.5	6.5	
1/10/1990	7.8	13.7	55.8	72.9	767.0	769.5	3.0	
1/11/1990	9.7	13.6	51.0	66.7	762.3	769.0	4.0	
1/12/1990	7.7	14.9	42.7	66.3	766.5	768.6	4.0	
1/13/1990	7.5	14.5	45.9	71.3	766.0	768.6	3.3	
1/14/1990	7.6	15.0	45.9	70.3	766.5	768.6	2.9	
1/15/1990	6.7	14.1	40.5	73.3	762.3	769.5	2.6	
1/16/1990	6.3	14.8	38.2	68.1	762.2	768.5	3.4	
1/17/1990	8.6	14.2	56.5	76.2	766.3	768.2	2.5	
1/18/1990	9.1	12.4	51.3	61.7	763.8	766.3	2.8	
1/19/1990	7.4	14.2	41.5	60.8	763.6	766.0	4.1	
1/20/1990	5.8	14.8	30.2	61.3	764.8	766.4	3.3	
1/21/1990	8.1	12.8	51.9	63.2	760.8	766.5	1.9	
1/22/1990	8.7	10.6	59.1	80.3	756.3	760.5	2.8	
1/23/1990	8.8	12.2	50.5	74.0	757.8	760.8	8.6	
1/24/1990	8.7	14.9	38.5	53.5	760.2	762.6	7.1	
1/25/1990	6.5	13.9	30.3	56.7	761.3	763.5	5.5	
1/26/1990	5.9	13.6	35.2	60.7	762.6	768.6	3.9	
1/27/1990	5.9	14.0	32.8	60.7	766.8	768.6	3.1	
1/28/1990	5.9	13.4	42.7	60.7	765.7	768.6	3.1	
1/29/1990	6.2	13.8	32.6	60.8	765.8	767.7	3.5	
1/30/1990	6.9	14.6	27.5	55.7	767.4	769.8	4.8	
1/31/1990	6.6	17.0	14.5	53.1	767.4	769.9	4.2	
mean	7.4	13.9	40.8	65.0	763.5	768.1	4.3	
max	9.7	17.0	59.1	80.3	767.4	772.4	9.8	
min	5.8	10.6	14.5	50.3	756.3	760.5	1.9	

## January



## February

**Table A**

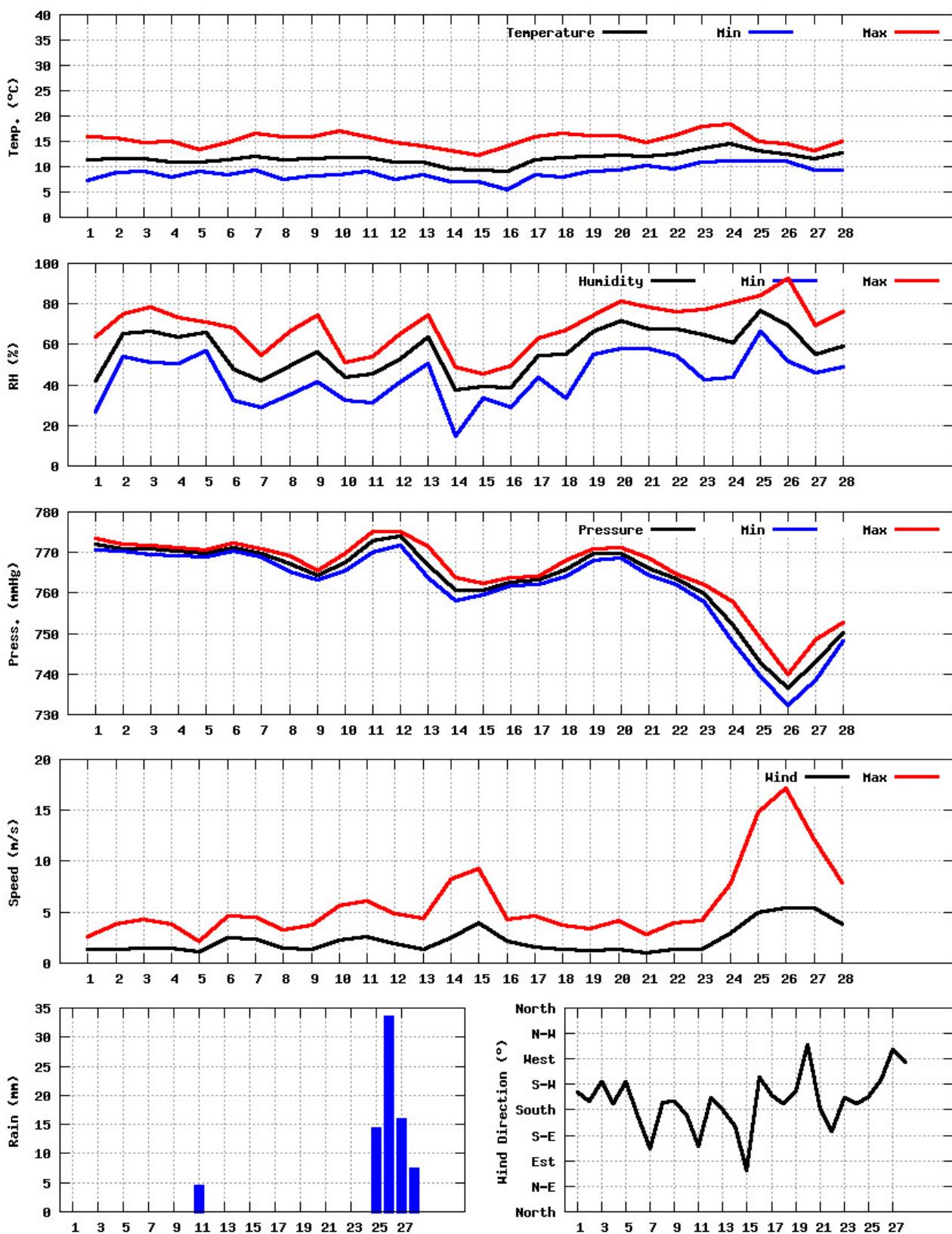
Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Daily Means Rain mm
				m/s	dir.		
2/1/1990	11.3	41.8	772.1	1.4	211	NP	0.0
2/2/1990	11.6	65.4	771.0	1.4	195	NP	0.0
2/3/1990	11.5	66.4	770.8	1.5	229	NP	0.0
2/4/1990	10.9	63.4	770.2	1.5	192	NP	0.0
2/5/1990	10.9	65.8	769.7	1.1	229	NP	0.0
2/6/1990	11.3	47.9	771.2	2.5	170	NP	0.0
2/7/1990	12.0	42.0	769.9	2.4	112	NP	0.0
2/8/1990	11.3	49.2	767.3	1.5	194	NP	0.0
2/9/1990	11.5	56.1	764.4	1.4	195	NP	0.0
2/10/1990	11.9	43.9	767.4	2.3	170	NP	0.0
2/11/1990	11.8	45.4	772.9	2.6	116	NP	4.4
2/12/1990	10.9	52.7	773.9	1.9	201	NP	0.0
2/13/1990	10.9	63.8	766.9	1.3	181	NP	0.0
2/14/1990	9.5	37.3	760.8	2.5	150	NP	0.0
2/15/1990	9.3	39.3	760.8	3.9	74	NP	0.0
2/16/1990	9.1	38.6	762.7	2.2	238	NP	0.0
2/17/1990	11.4	54.5	763.3	1.6	206	NP	0.0
2/18/1990	11.9	55.1	765.8	1.4	191	NP	0.0
2/19/1990	12.0	66.5	769.8	1.2	213	NP	0.0
2/20/1990	12.2	71.5	769.8	1.4	295	NP	0.0
2/21/1990	12.1	67.7	766.0	1.0	180	NP	0.0
2/22/1990	12.4	67.5	763.4	1.3	142	NP	0.0
2/23/1990	13.6	64.6	759.8	1.4	202	NP	0.0
2/24/1990	14.6	60.9	752.2	2.9	191	NP	0.0
2/25/1990	13.1	76.6	742.8	5.0	204	NP	14.2
2/26/1990	12.6	69.5	736.6	5.4	233	NP	33.4
2/27/1990	11.5	55.3	743.2	5.4	287	NP	15.8
2/28/1990	12.8	59.3	750.2	3.8	264	NP	7.4
mean	11.6	56.7	763.4	2.3	195	NP	2.7
max	14.6	76.6	773.9	5.4	295	NP	33.4
min	9.1	37.3	736.6	1.0	74	NP	0.0
cum							75.2

## February

**Table B**

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s	daily extreme
	min	max	min	max	min	max		
2/1/1990	7.2	15.9	26.7	63.6	770.7	773.6	2.6	
2/2/1990	8.8	15.7	54.2	75.0	770.2	772.0	3.8	
2/3/1990	9.1	14.7	51.3	78.3	769.6	771.8	4.3	
2/4/1990	7.9	15.0	50.3	73.4	769.2	771.1	3.8	
2/5/1990	9.1	13.5	56.9	71.1	768.8	770.7	2.2	
2/6/1990	8.3	14.7	32.5	68.3	770.4	772.4	4.6	
2/7/1990	9.4	16.6	28.8	54.8	768.9	770.8	4.5	
2/8/1990	7.4	15.8	35.4	66.7	765.2	769.2	3.3	
2/9/1990	8.2	15.9	41.4	74.4	763.3	765.4	3.7	
2/10/1990	8.4	17.0	32.2	50.9	765.5	769.9	5.7	
2/11/1990	9.0	16.0	31.4	53.8	770.1	775.2	6.1	
2/12/1990	7.5	14.8	41.5	65.2	771.7	775.2	4.9	
2/13/1990	8.4	14.1	50.4	74.6	763.9	771.5	4.4	
2/14/1990	7.1	13.1	14.8	49.1	758.1	763.9	8.3	
2/15/1990	7.1	12.2	33.3	45.3	759.5	762.5	9.3	
2/16/1990	5.5	14.2	28.9	49.7	761.7	763.8	4.3	
2/17/1990	8.5	15.9	43.7	63.1	762.2	764.1	4.6	
2/18/1990	8.0	16.6	33.5	67.2	764.1	768.0	3.7	
2/19/1990	9.0	16.2	54.9	74.6	768.0	770.8	3.4	
2/20/1990	9.4	16.1	58.2	81.0	768.5	771.1	4.2	
2/21/1990	10.3	14.7	57.8	78.4	764.5	768.5	2.8	
2/22/1990	9.5	16.2	54.8	76.2	762.0	764.8	4.0	
2/23/1990	10.8	17.9	42.4	77.3	757.8	762.2	4.2	
2/24/1990	11.1	18.4	44.0	80.7	747.8	757.9	7.8	
2/25/1990	11.1	15.1	66.4	84.2	739.5	748.7	14.8	
2/26/1990	11.1	14.6	51.5	92.6	732.4	739.9	17.2	
2/27/1990	9.3	13.2	45.9	69.4	738.6	748.4	12.1	
2/28/1990	9.4	14.9	48.6	76.2	748.2	752.6	7.9	
mean	8.8	15.3	43.3	69.1	761.4	765.6	5.8	
max	11.1	18.4	66.4	92.6	771.7	775.2	17.2	
min	5.5	12.2	14.8	45.3	732.4	739.9	2.2	

## February



**March****Table A**

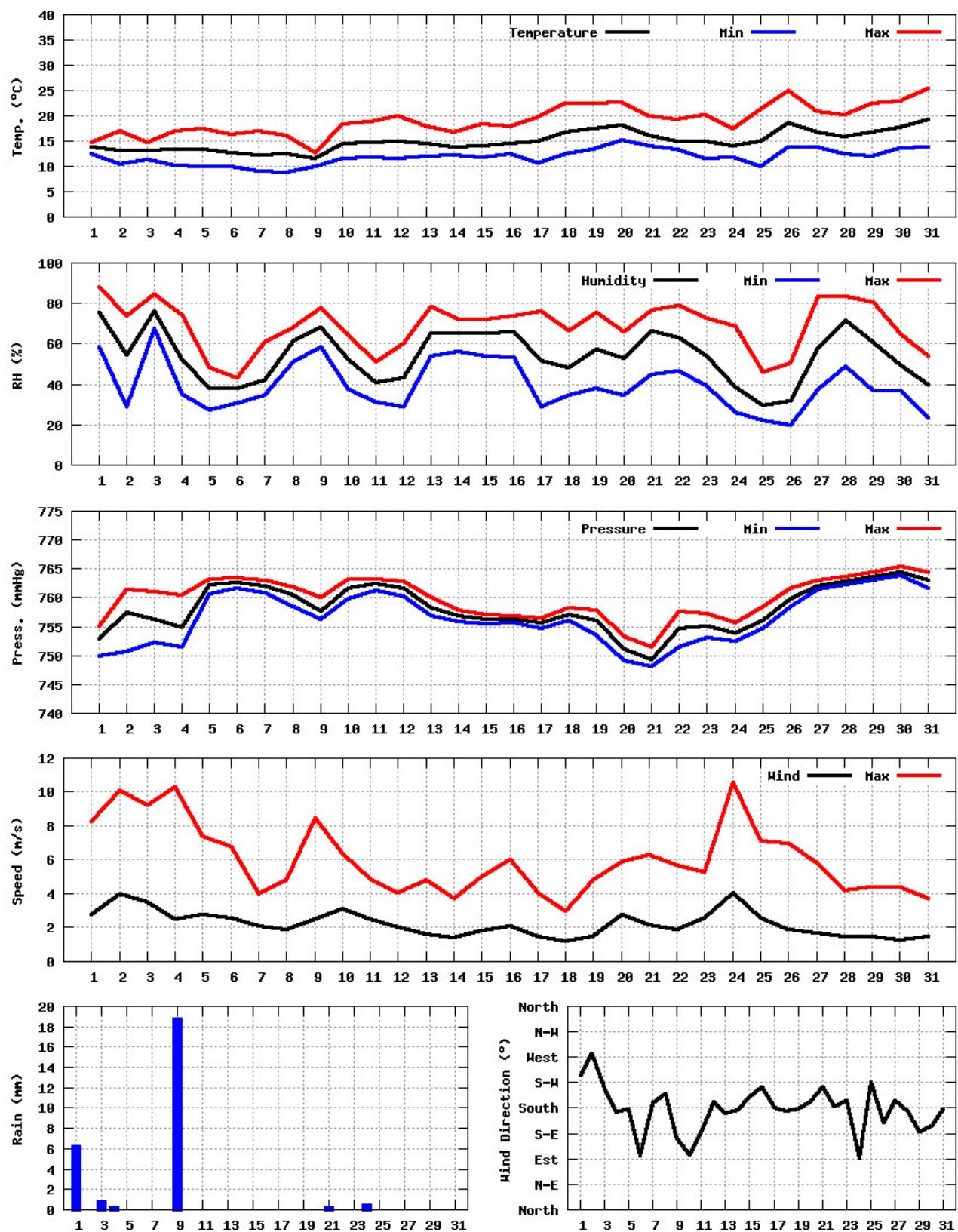
Daily Means

Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Rain mm
				m/s	dir.		
3/1/1990	13.8	75.4	752.9	2.8	237	NP	6.2
3/2/1990	13.1	54.7	757.5	4.0	276	NP	0.0
3/3/1990	13.2	76.1	756.3	3.5	215	NP	0.8
3/4/1990	13.4	52.4	755.0	2.5	173	NP	0.2
3/5/1990	13.3	38.2	762.2	2.8	179	NP	0.0
3/6/1990	12.7	38.2	762.7	2.6	96	NP	0.0
3/7/1990	12.2	42.3	762.1	2.1	189	NP	0.0
3/8/1990	12.5	61.2	760.4	1.9	206	NP	0.0
3/9/1990	11.6	68.3	757.7	2.5	126	NP	18.8
3/10/1990	14.5	52.0	761.7	3.1	98	NP	0.0
3/11/1990	14.8	40.7	762.5	2.5	136	NP	0.0
3/12/1990	15.1	42.9	761.6	2.0	191	NP	0.0
3/13/1990	14.5	65.4	758.3	1.6	170	NP	0.0
3/14/1990	13.9	65.6	757.0	1.4	176	NP	0.0
3/15/1990	14.2	65.3	756.4	1.8	199	NP	0.0
3/16/1990	14.6	65.7	756.4	2.1	217	NP	0.0
3/17/1990	15.0	51.5	755.7	1.5	182	NP	0.0
3/18/1990	16.8	48.5	757.2	1.2	175	NP	0.0
3/19/1990	17.4	57.5	756.1	1.5	179	NP	0.0
3/20/1990	18.1	52.6	751.1	2.8	191	NP	0.0
3/21/1990	16.1	66.4	749.3	2.2	217	NP	0.2
3/22/1990	15.1	63.1	754.8	1.9	183	NP	0.0
3/23/1990	15.0	53.7	755.2	2.6	194	NP	0.0
3/24/1990	14.1	38.7	754.0	4.1	91	NP	0.4
3/25/1990	15.1	29.6	756.2	2.6	226	NP	0.0
3/26/1990	18.6	31.7	759.9	1.9	155	NP	0.0
3/27/1990	16.8	58.1	762.1	1.7	193	NP	0.0
3/28/1990	15.9	71.5	762.9	1.5	175	NP	0.0
3/29/1990	16.8	60.7	763.7	1.5	138	NP	0.0
3/30/1990	17.7	49.4	764.4	1.3	149	NP	0.0
3/31/1990	19.3	39.6	763.1	1.5	179	NP	0.0
mean	15.0	54.1	758.3	2.2	178	NP	0.9
max	19.3	76.1	764.4	4.1	276	NP	18.8
min	11.6	29.6	749.3	1.2	91	NP	0.0
cum							26.6

**March****Table B**

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s	daily extreme
	min	max	min	max	min	max		
3/1/1990	12.4	14.8	58.5	87.9	749.9	755.1	8.3	
3/2/1990	10.5	17.1	28.9	74.1	750.7	761.4	10.1	
3/3/1990	11.3	14.8	67.6	84.9	752.4	761.1	9.2	
3/4/1990	10.3	17.0	35.3	74.4	751.6	760.4	10.3	
3/5/1990	10.0	17.5	27.2	48.2	760.6	763.3	7.4	
3/6/1990	10.0	16.3	30.9	43.0	761.7	763.5	6.8	
3/7/1990	9.2	17.0	34.9	60.7	760.9	763.0	4.0	
3/8/1990	8.9	16.1	51.4	68.4	758.4	761.9	4.8	
3/9/1990	10.0	12.8	58.6	77.9	756.3	760.0	8.5	
3/10/1990	11.7	18.5	37.4	64.1	759.8	763.2	6.4	
3/11/1990	11.9	18.8	31.5	51.2	761.3	763.3	4.9	
3/12/1990	11.6	20.1	29.1	60.3	760.3	762.9	4.1	
3/13/1990	12.1	17.9	53.7	78.3	757.0	760.1	4.8	
3/14/1990	12.2	16.8	56.2	72.2	755.9	757.9	3.7	
3/15/1990	11.9	18.3	53.7	72.2	755.6	757.2	5.0	
3/16/1990	12.6	18.0	53.4	74.0	755.7	757.0	6.0	
3/17/1990	10.7	19.8	29.1	76.3	754.8	756.5	4.1	
3/18/1990	12.4	22.5	34.6	66.3	756.2	758.2	3.0	
3/19/1990	13.4	22.6	37.9	75.7	753.5	757.9	4.8	
3/20/1990	15.3	22.7	34.6	66.1	749.1	753.4	5.9	
3/21/1990	14.1	20.0	44.7	76.7	748.1	751.5	6.3	
3/22/1990	13.3	19.4	46.8	78.8	751.6	757.6	5.7	
3/23/1990	11.7	20.3	39.1	72.9	753.2	757.3	5.3	
3/24/1990	11.8	17.5	26.3	68.9	752.5	755.7	10.6	
3/25/1990	10.1	21.4	22.0	45.8	754.8	758.5	7.1	
3/26/1990	13.9	25.1	19.7	50.3	758.4	761.6	7.0	
3/27/1990	13.8	20.9	37.4	83.5	761.4	763.0	5.8	
3/28/1990	12.6	20.2	48.8	83.6	762.3	763.6	4.2	
3/29/1990	12.1	22.5	37.2	80.6	763.0	764.4	4.4	
3/30/1990	13.6	22.9	37.2	65.0	763.8	765.4	4.4	
3/31/1990	13.9	25.5	23.2	53.8	761.6	764.4	3.7	
mean	11.9	19.2	39.6	68.9	756.5	760.0	6.0	
max	15.3	25.5	67.6	87.9	763.8	765.4	10.6	
min	8.9	12.8	19.7	43.0	748.1	751.5	3.0	

## March



## April

**Table A**

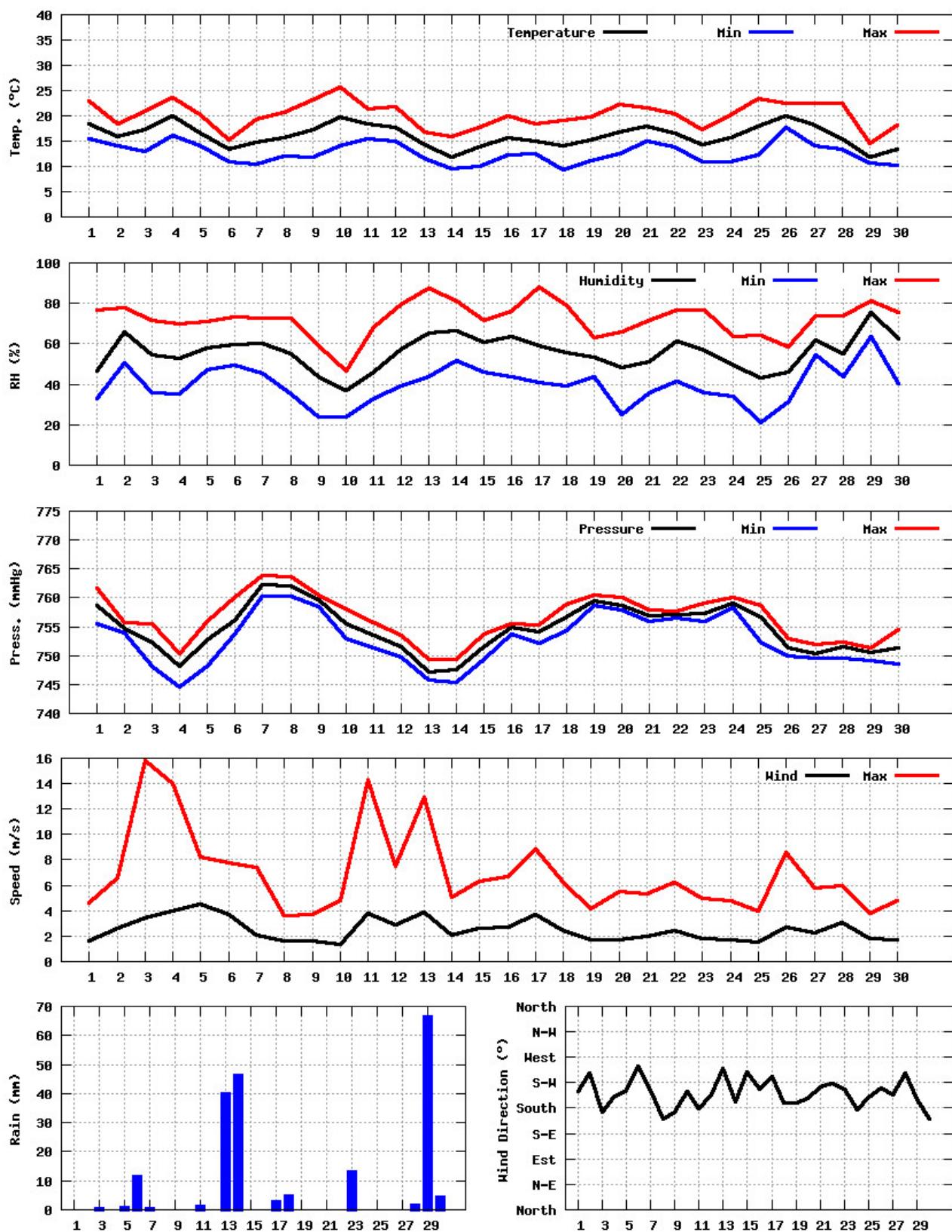
Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Daily Means Rain mm
				m/s	dir.		
4/1/1990	18.4	46.7	758.6	1.6	209	NP	0.0
4/2/1990	16.0	65.7	754.7	2.6	242	NP	0.0
4/3/1990	17.2	54.8	752.4	3.4	172	NP	0.2
4/4/1990	20.0	52.9	748.1	4.0	200	NP	0.0
4/5/1990	16.5	57.9	752.8	4.5	212	NP	0.8
4/6/1990	13.5	59.7	756.1	3.7	254	NP	11.4
4/7/1990	14.8	60.0	762.3	2.1	211	NP	0.2
4/8/1990	15.7	54.9	762.0	1.6	161	NP	0.0
4/9/1990	17.3	43.7	759.6	1.6	173	NP	0.0
4/10/1990	19.7	36.8	755.5	1.4	210	NP	0.0
4/11/1990	18.3	45.8	753.6	3.8	179	NP	1.2
4/12/1990	17.8	57.2	751.6	2.9	203	NP	0.0
4/13/1990	14.3	65.5	747.2	3.9	251	NP	39.8
4/14/1990	11.9	66.4	747.5	2.1	192	NP	46.2
4/15/1990	13.8	60.9	751.5	2.6	244	NP	0.0
4/16/1990	15.7	63.4	754.9	2.7	213	NP	0.0
4/17/1990	15.0	59.3	754.1	3.7	236	NP	2.6
4/18/1990	14.1	55.6	756.7	2.4	189	NP	4.6
4/19/1990	15.3	53.5	759.5	1.7	190	NP	0.0
4/20/1990	16.8	48.5	758.7	1.7	197	NP	0.0
4/21/1990	18.0	51.3	756.9	2.0	218	NP	0.0
4/22/1990	16.5	61.3	757.1	2.4	223	NP	0.0
4/23/1990	14.4	56.8	757.4	1.8	213	NP	13.0
4/24/1990	15.7	49.3	759.0	1.7	177	NP	0.0
4/25/1990	17.9	43.4	756.7	1.5	199	NP	0.0
4/26/1990	20.1	46.1	751.3	2.7	216	NP	0.0
4/27/1990	18.1	61.7	750.4	2.3	204	NP	0.0
4/28/1990	15.5	55.2	751.5	3.1	243	NP	1.6
4/29/1990	11.9	75.4	750.5	1.8	196	NP	66.4
4/30/1990	13.5	62.7	751.3	1.7	161	NP	4.2
mean	16.1	55.7	754.7	2.5	206	NP	6.4
max	20.1	75.4	762.3	4.5	254	NP	66.4
min	11.9	36.8	747.2	1.4	161	NP	0.0
cum							192.2

## April

**Table B**

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s	daily extreme
	min	max	min	max	min	max		
4/1/1990	15.5	22.9	33.0	76.8	755.6	761.6	4.6	
4/2/1990	14.2	18.4	50.4	77.7	754.0	755.7	6.6	
4/3/1990	12.9	21.0	35.7	71.8	748.2	755.6	15.8	
4/4/1990	16.2	23.7	35.3	69.8	744.6	750.3	14.0	
4/5/1990	14.0	20.2	47.3	71.3	748.1	755.9	8.2	
4/6/1990	10.8	15.2	49.2	73.1	753.8	760.0	7.8	
4/7/1990	10.5	19.3	45.5	72.6	760.3	763.8	7.4	
4/8/1990	12.0	20.7	35.2	72.6	760.3	763.6	3.6	
4/9/1990	11.9	23.1	24.1	59.2	758.4	760.4	3.7	
4/10/1990	14.0	25.7	23.7	46.8	752.9	758.1	4.8	
4/11/1990	15.5	21.3	32.7	68.1	751.3	755.7	14.3	
4/12/1990	15.0	21.9	39.3	79.4	749.7	753.5	7.5	
4/13/1990	11.6	16.9	43.8	87.7	745.8	749.4	12.9	
4/14/1990	9.5	16.0	51.6	81.3	745.3	749.3	5.1	
4/15/1990	10.0	17.8	45.8	71.7	749.3	753.8	6.3	
4/16/1990	12.3	19.9	44.0	76.3	753.7	755.6	6.7	
4/17/1990	12.6	18.4	41.0	88.2	752.1	755.3	8.9	
4/18/1990	9.3	19.2	39.2	78.8	754.4	758.8	6.2	
4/19/1990	11.1	19.8	43.8	62.8	758.7	760.4	4.2	
4/20/1990	12.4	22.3	24.8	66.1	757.8	760.0	5.5	
4/21/1990	14.9	21.6	36.0	71.8	755.9	757.8	5.3	
4/22/1990	13.8	20.4	41.5	76.8	756.6	757.6	6.2	
4/23/1990	10.8	17.3	36.0	76.6	755.9	759.1	5.0	
4/24/1990	11.0	20.3	34.2	63.5	758.2	760.0	4.8	
4/25/1990	12.2	23.5	20.9	64.1	752.4	758.7	4.0	
4/26/1990	17.8	22.4	31.5	58.5	750.0	752.9	8.6	
4/27/1990	14.2	22.5	54.7	74.1	749.6	751.9	5.8	
4/28/1990	13.5	22.5	43.7	74.1	749.6	752.4	6.0	
4/29/1990	10.7	14.6	63.4	81.1	749.1	751.3	3.8	
4/30/1990	10.3	18.1	40.2	75.5	748.5	754.5	4.8	
mean	12.7	20.2	39.6	72.3	752.6	756.4	6.9	
max	17.8	25.7	63.4	88.2	760.3	763.8	15.8	
min	9.3	14.6	20.9	46.8	744.6	749.3	3.6	

## April



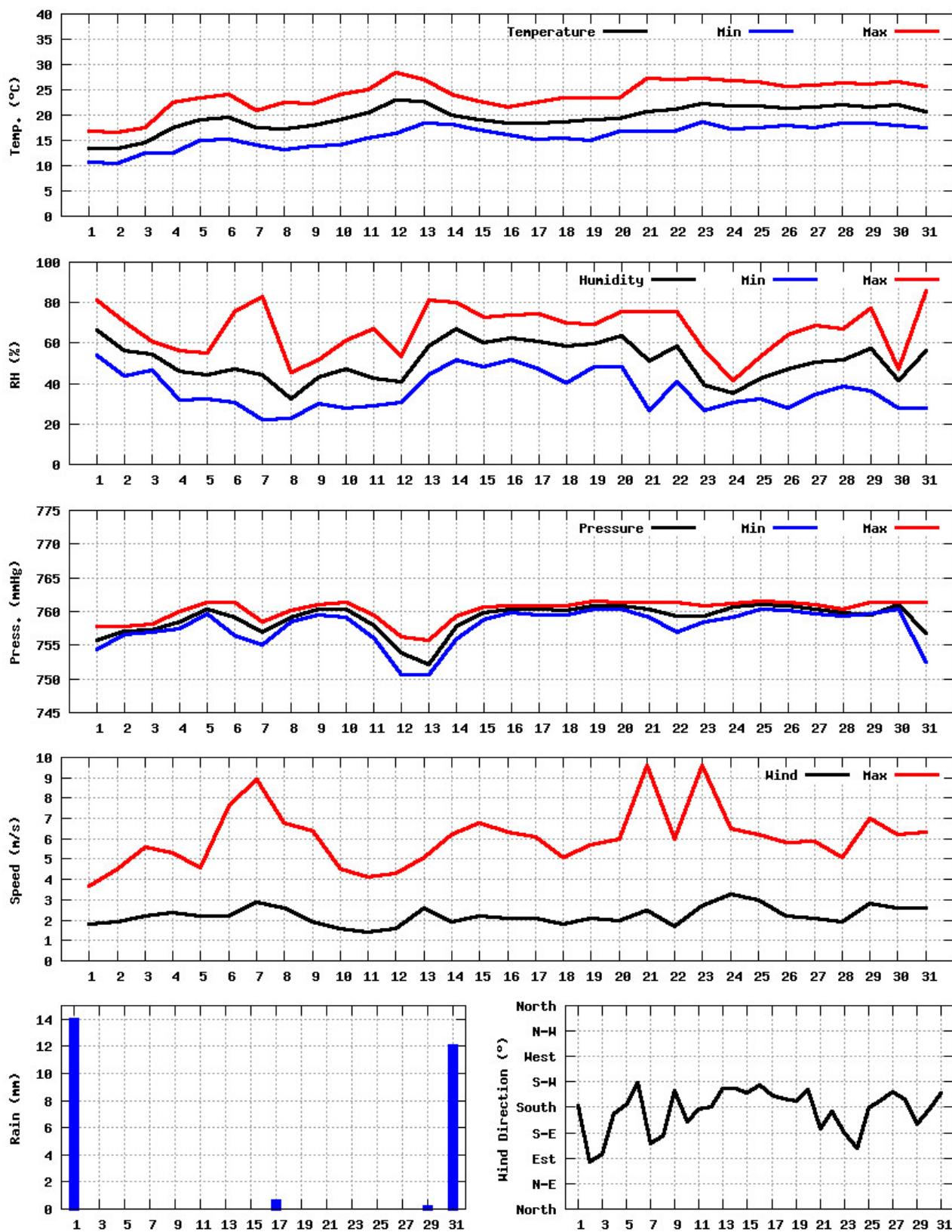
**May****Table A**

Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Rain mm	Daily Means	
				m/s	dir.				
5/1/1990	13.4	66.5	755.8	1.8	184	0.4	14.0		
5/2/1990	13.4	56.5	757.1	1.9	84	0.4	0.0		
5/3/1990	14.6	54.3	757.3	2.2	97	0.4	0.0		
5/4/1990	17.4	45.9	758.5	2.4	168	0.4	0.0		
5/5/1990	19.0	44.5	760.3	2.2	185	0.3	0.0		
5/6/1990	19.5	46.9	759.2	2.2	223	0.4	0.0		
5/7/1990	17.5	44.3	756.9	2.9	116	0.4	0.0		
5/8/1990	17.3	32.6	759.1	2.6	131	0.5	0.0		
5/9/1990	18.0	43.3	760.3	1.9	209	0.4	0.0		
5/10/1990	19.1	47.1	760.3	1.6	154	0.4	0.0		
5/11/1990	20.4	42.8	758.0	1.4	177	0.4	0.0		
5/12/1990	23.0	41.1	753.8	1.6	181	0.3	0.0		
5/13/1990	22.7	58.8	752.2	2.6	214	0.4	0.0		
5/14/1990	20.1	66.9	757.8	1.9	213	0.4	0.0		
5/15/1990	19.2	60.2	759.8	2.2	205	0.4	0.0		
5/16/1990	18.4	62.6	760.4	2.1	219	0.3	0.0		
5/17/1990	18.4	60.7	760.3	2.1	202	0.4	0.6		
5/18/1990	18.6	58.8	760.1	1.8	195	0.4	0.0		
5/19/1990	19.2	59.6	760.8	2.1	192	0.4	0.0		
5/20/1990	19.4	63.8	760.8	2.0	212	0.3	0.0		
5/21/1990	20.7	51.4	760.4	2.5	143	0.3	0.0		
5/22/1990	21.1	58.7	759.4	1.7	173	0.3	0.0		
5/23/1990	22.3	39.4	759.4	2.7	134	0.3	0.0		
5/24/1990	21.9	35.2	760.6	3.3	107	0.5	0.0		
5/25/1990	21.8	42.5	761.0	3.0	179	0.3	0.0		
5/26/1990	21.3	47.4	760.8	2.2	193	0.4	0.0		
5/27/1990	21.5	50.7	760.4	2.1	207	0.4	0.0		
5/28/1990	22.0	51.6	759.9	1.9	194	0.4	0.0		
5/29/1990	21.6	57.6	759.5	2.8	150	0.4	0.2		
5/30/1990	22.1	41.4	761.0	2.6	176	0.4	0.0		
5/31/1990	20.7	56.5	756.8	2.6	205	0.3	12.0		
mean	19.5	51.3	759.0	2.2	175	0.4	0.9		
max	23.0	66.9	761.0	3.3	223	0.5	14.0		
min	13.4	32.6	752.2	1.4	84	0.3	0.0		
cum							26.8		

**May****Table B**

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s	daily extreme
	min	max	min	max	min	max		
5/1/1990	10.7	16.8	53.7	81.1	754.4	757.8	3.7	
5/2/1990	10.5	16.7	43.5	70.5	756.6	757.8	4.5	
5/3/1990	12.4	17.4	46.4	60.6	756.9	758.2	5.6	
5/4/1990	12.5	22.6	31.6	56.5	757.5	760.0	5.3	
5/5/1990	15.0	23.5	32.5	55.2	759.7	761.3	4.6	
5/6/1990	15.3	24.1	30.8	75.8	756.5	761.4	7.6	
5/7/1990	14.2	21.0	22.0	82.9	755.1	758.5	8.9	
5/8/1990	13.2	22.4	22.7	45.2	758.4	760.1	6.8	
5/9/1990	13.9	22.2	30.0	51.8	759.5	761.0	6.4	
5/10/1990	14.2	24.0	28.1	61.2	759.2	761.4	4.5	
5/11/1990	15.5	24.9	29.1	67.2	756.0	759.5	4.1	
5/12/1990	16.4	28.5	30.4	53.6	750.7	756.2	4.3	
5/13/1990	18.3	27.1	44.2	81.2	750.7	755.7	5.1	
5/14/1990	18.1	24.1	51.9	80.1	755.9	759.4	6.2	
5/15/1990	17.1	22.7	48.5	72.8	758.8	760.7	6.8	
5/16/1990	16.1	21.7	51.8	73.9	759.8	760.9	6.3	
5/17/1990	15.2	22.4	47.1	74.2	759.5	760.9	6.1	
5/18/1990	15.4	23.5	40.4	69.8	759.5	760.9	5.1	
5/19/1990	15.1	23.4	48.2	69.1	760.4	761.6	5.7	
5/20/1990	16.9	23.4	48.2	75.6	760.4	761.3	6.0	
5/21/1990	16.9	27.3	26.5	75.6	759.1	761.3	9.6	
5/22/1990	16.9	27.1	41.0	75.6	756.9	761.3	6.0	
5/23/1990	18.7	27.3	26.5	56.4	758.4	760.9	9.6	
5/24/1990	17.3	26.8	30.5	41.5	759.2	761.2	6.5	
5/25/1990	17.4	26.6	32.2	53.6	760.3	761.6	6.2	
5/26/1990	17.9	25.6	28.0	64.2	760.1	761.3	5.8	
5/27/1990	17.6	25.9	34.9	68.9	759.7	761.1	5.9	
5/28/1990	18.4	26.3	38.5	67.3	759.4	760.4	5.1	
5/29/1990	18.3	26.1	36.5	77.0	759.7	761.4	7.0	
5/30/1990	17.9	26.6	28.0	47.4	760.3	761.4	6.2	
5/31/1990	17.5	25.6	28.0	85.7	752.5	761.3	6.3	
mean	15.8	24.0	36.5	66.8	757.8	760.3	6.1	
max	18.7	28.5	53.7	85.7	760.4	761.6	9.6	
min	10.5	16.7	22.0	41.5	750.7	755.7	3.7	

## May



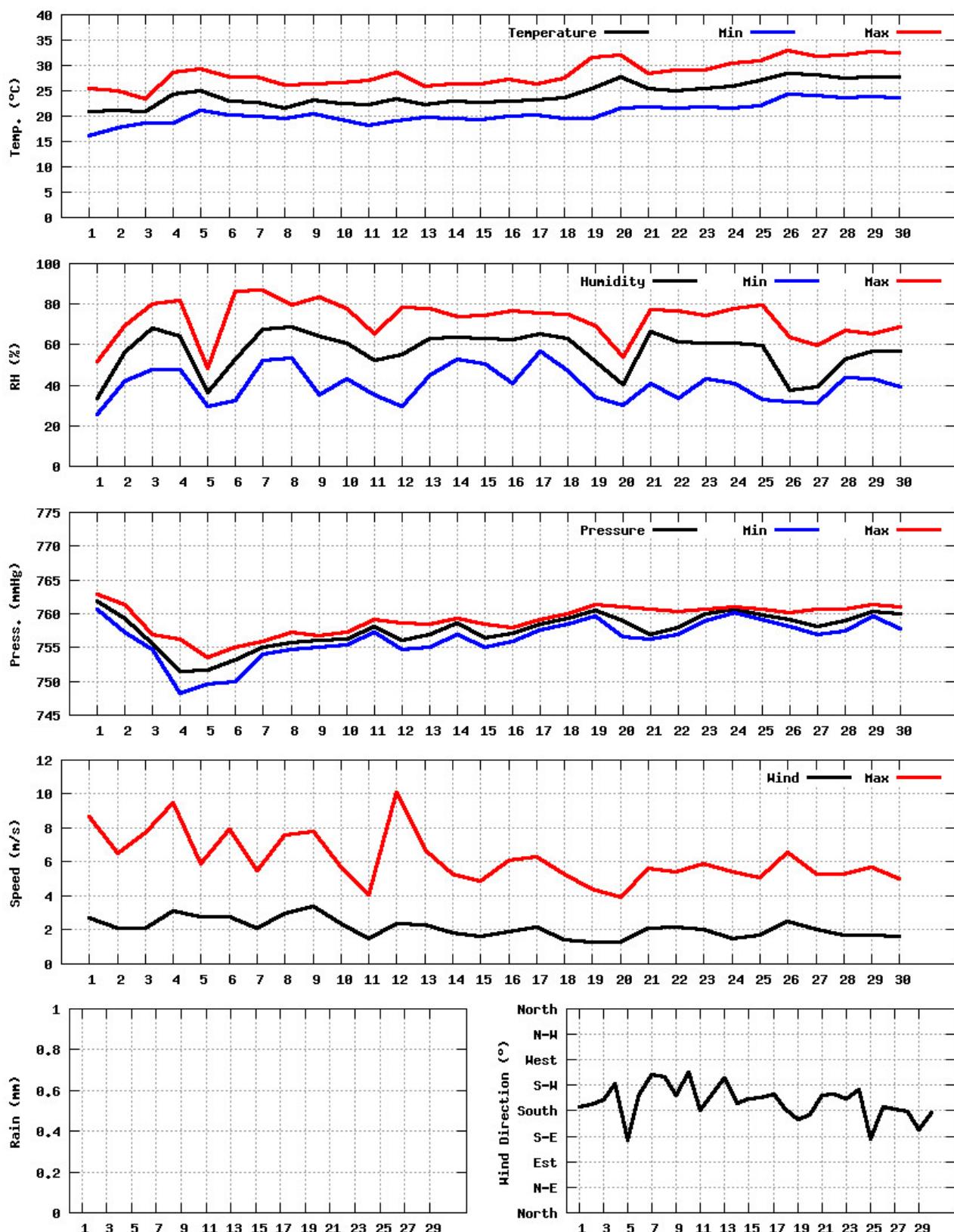
**June****Table A**

Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Rain mm	Daily Means	
				m/s	dir.				
6/1/1990	20.8	33.6	761.9	2.7	187	0.4	0.0		
6/2/1990	21.2	56.1	759.4	2.1	192	0.5	0.0		
6/3/1990	20.8	68.1	755.6	2.1	199	0.2	0.0		
6/4/1990	24.4	64.0	751.4	3.1	227	0.4	0.0		
6/5/1990	24.9	36.3	751.7	2.8	128	0.4	0.0		
6/6/1990	23.0	53.1	753.2	2.8	209	0.2	0.0		
6/7/1990	22.8	67.8	755.1	2.1	244	0.5	0.0		
6/8/1990	21.6	68.7	755.8	3.0	239	0.3	0.0		
6/9/1990	23.2	64.4	756.1	3.4	207	0.5	0.0		
6/10/1990	22.4	60.7	756.2	2.4	248	0.4	0.0		
6/11/1990	22.3	52.4	758.2	1.5	182	0.4	0.0		
6/12/1990	23.4	55.3	756.1	2.4	211	0.4	0.0		
6/13/1990	22.3	63.0	756.9	2.3	237	0.4	0.0		
6/14/1990	22.9	63.7	758.6	1.8	194	0.5	0.0		
6/15/1990	22.7	63.3	756.5	1.6	201	0.4	0.0		
6/16/1990	22.9	62.4	757.1	1.9	204	0.4	0.0		
6/17/1990	23.1	65.3	758.5	2.2	209	0.4	0.0		
6/18/1990	23.6	63.0	759.3	1.4	184	0.5	0.0		
6/19/1990	25.5	51.9	760.5	1.3	165	0.5	0.0		
6/20/1990	27.7	40.1	758.9	1.3	172	0.5	0.0		
5/21/1990	25.5	66.2	756.9	2.1	207	0.4	0.0		
6/22/1990	25.1	61.2	757.9	2.2	209	0.5	0.0		
6/23/1990	25.4	60.9	760.0	2.0	201	0.5	0.0		
6/24/1990	25.8	61.0	760.6	1.5	217	0.5	0.0		
6/25/1990	27.1	59.8	759.9	1.7	130	0.4	0.0		
6/26/1990	28.4	37.6	759.2	2.5	187	0.5	0.0		
6/27/1990	28.1	39.3	758.1	2.0	184	0.5	0.0		
6/28/1990	27.5	52.7	758.9	1.7	179	0.4	0.0		
6/29/1990	27.8	57.0	760.4	1.7	147	0.4	0.0		
6/30/1990	27.8	56.7	760.0	1.6	177	0.4	0.0		
mean	24.3	56.9	757.6	2.1	196	0.4	0.0		
max	28.4	68.7	761.9	3.4	248	0.5	0.0		
min	20.8	33.6	751.4	1.3	128	0.2	0.0		
cum									0.0

**June****Table B**

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s	daily extreme
	min	max	min	max	min	max		
6/1/1990	16.1	25.5	25.3	51.5	760.7	762.9	8.7	
6/2/1990	17.7	25.1	42.1	69.5	757.2	761.3	6.5	
6/3/1990	18.7	23.5	47.5	80.0	754.7	757.0	7.7	
6/4/1990	18.6	28.7	47.5	81.6	748.2	756.3	9.5	
6/5/1990	21.2	29.4	29.7	48.5	749.6	753.5	5.9	
6/6/1990	20.2	27.7	32.6	86.4	750.0	755.0	7.9	
6/7/1990	19.9	27.7	52.0	87.1	754.0	755.9	5.5	
6/8/1990	19.5	26.1	53.4	79.7	754.7	757.2	7.6	
6/9/1990	20.5	26.4	35.2	83.8	755.0	756.7	7.8	
6/10/1990	19.3	26.5	43.0	78.0	755.4	757.3	5.7	
6/11/1990	18.1	27.0	35.5	65.1	757.3	759.1	4.1	
6/12/1990	19.0	28.6	29.7	78.5	754.7	758.7	10.1	
6/13/1990	19.8	26.0	45.1	77.8	755.1	758.4	6.7	
6/14/1990	19.5	26.4	53.1	73.9	757.0	759.4	5.3	
6/15/1990	19.3	26.3	50.3	74.2	755.0	758.5	4.9	
6/16/1990	19.9	27.2	41.1	76.7	755.9	757.9	6.1	
6/17/1990	20.2	26.4	56.7	75.5	757.6	759.1	6.3	
6/18/1990	19.5	27.4	47.1	74.8	758.5	760.0	5.3	
6/19/1990	19.6	31.5	34.1	69.4	759.7	761.3	4.4	
6/20/1990	21.7	32.1	30.2	54.0	756.6	761.0	3.9	
6/21/1990	21.8	28.5	41.0	77.0	756.2	760.7	5.6	
6/22/1990	21.6	29.0	33.3	76.8	757.0	760.3	5.4	
6/23/1990	21.9	29.0	43.1	74.6	758.9	760.7	5.9	
6/24/1990	21.7	30.5	40.9	78.0	760.1	761.1	5.4	
6/25/1990	22.1	30.9	33.1	79.7	759.1	760.6	5.1	
6/26/1990	24.3	33.0	31.6	63.6	758.2	760.1	6.6	
6/27/1990	24.1	31.8	31.4	59.8	757.0	760.6	5.3	
6/28/1990	23.7	32.0	43.6	66.9	757.5	760.6	5.3	
6/29/1990	23.8	32.7	43.2	65.6	759.7	761.3	5.7	
6/30/1990	23.7	32.4	39.2	68.5	757.8	761.1	5.0	
mean	20.6	28.5	40.4	72.6	756.3	759.1	6.2	
max	24.3	33.0	56.7	87.1	760.7	762.9	10.1	
min	16.1	23.5	25.3	48.5	748.2	753.5	3.9	

## June



## July

Table A

Daily Means

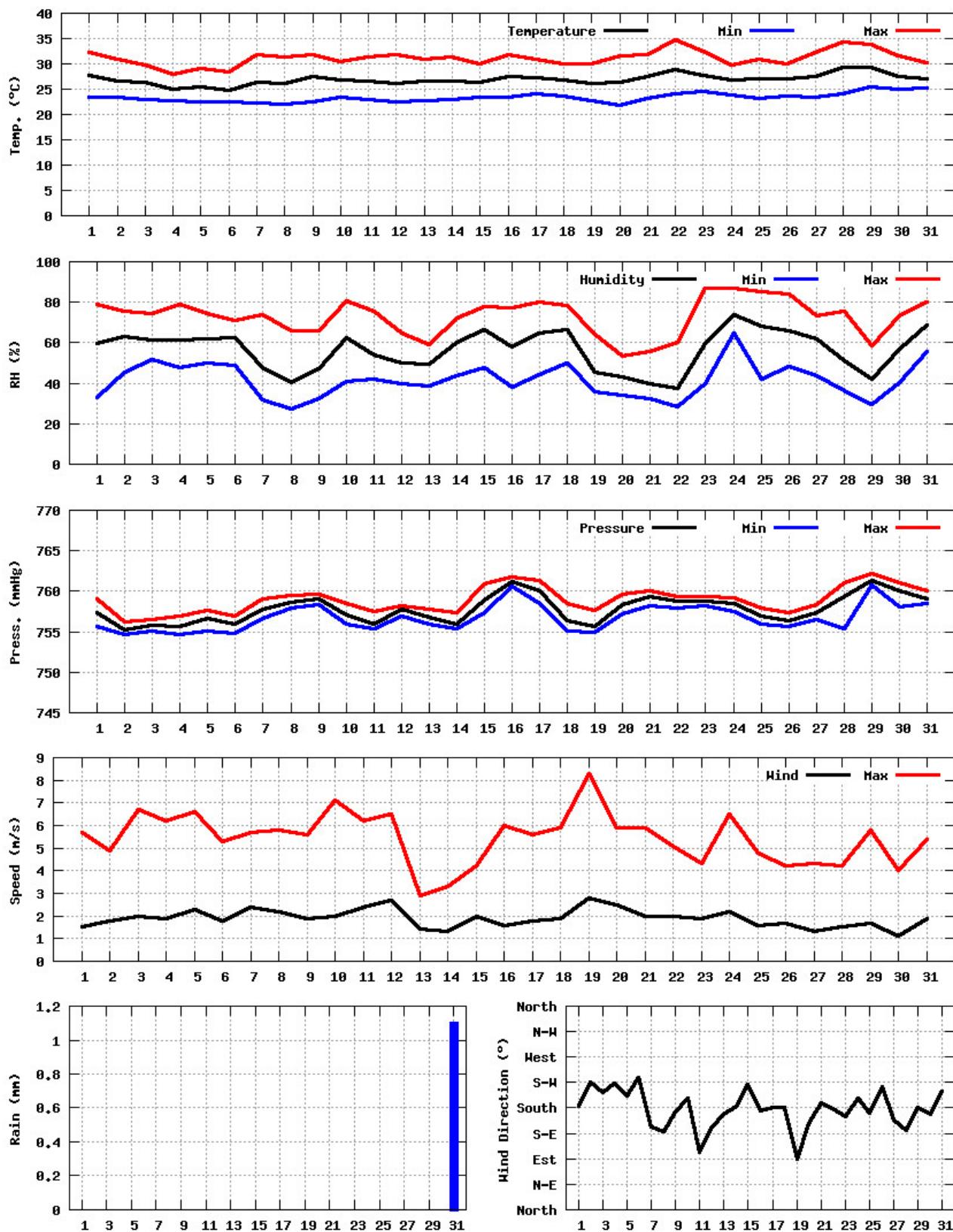
Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Rain mm
				m/s	dir.		
7/1/1990	27.7	59.7	757.4	1.5	183	0.4	0.0
7/2/1990	26.6	62.8	755.2	1.8	225	0.4	0.0
7/3/1990	26.3	61.2	755.8	2.0	207	0.5	0.0
7/4/1990	25.0	61.6	755.7	1.9	224	0.4	0.0
7/5/1990	25.5	61.8	756.6	2.3	201	0.4	0.0
7/6/1990	24.8	62.7	755.9	1.8	234	0.3	0.0
7/7/1990	26.3	48.0	757.8	2.4	146	0.4	0.0
7/8/1990	26.1	40.5	758.7	2.2	139	0.4	0.0
7/9/1990	27.5	46.9	759.1	1.9	173	0.4	0.0
7/10/1990	26.8	62.4	757.1	2.0	197	0.4	0.0
7/11/1990	26.6	54.1	756.0	2.4	102	0.4	0.0
7/12/1990	26.2	49.8	757.8	2.7	146	0.4	0.0
7/13/1990	26.7	49.6	756.8	1.4	168	0.4	0.0
7/14/1990	26.7	60.0	756.0	1.3	184	0.4	0.0
7/15/1990	26.4	66.2	758.9	2.0	222	0.4	0.0
7/16/1990	27.6	57.7	761.2	1.6	174	0.4	0.0
7/17/1990	27.2	64.6	760.0	1.8	182	0.4	0.0
7/18/1990	26.9	66.7	756.4	1.9	180	0.4	0.0
7/19/1990	26.1	45.2	755.7	2.8	90	0.4	0.0
7/20/1990	26.4	43.0	758.3	2.5	152	0.4	0.0
7/21/1990	27.5	39.8	759.3	2.0	189	0.4	0.0
7/22/1990	28.9	37.3	758.8	2.0	179	0.4	0.0
7/23/1990	27.8	59.5	758.8	1.9	165	0.4	0.0
7/24/1990	26.9	73.8	758.5	2.2	197	0.4	0.0
7/25/1990	27.0	68.0	756.9	1.6	171	0.4	0.0
7/26/1990	27.0	65.8	756.4	1.7	217	0.4	0.0
7/27/1990	27.6	61.8	757.4	1.3	158	0.4	0.0
7/28/1990	29.3	51.3	759.4	1.5	140	0.4	0.0
7/29/1990	29.3	42.2	761.4	1.7	182	0.4	0.0
7/30/1990	27.6	57.0	760.1	1.1	168	0.2	0.0
7/31/1990	27.0	68.8	759.1	1.9	210.0	0.2	1.1
mean	26.9	56.4	757.8	1.9	178	0.4	0
max	29.3	73.8	761.4	2.8	234	0.5	1.1
min	24.8	37.3	755.2	1.1	90	0.2	0.0
cum							1.1

# July

**Table B**

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s	daily extreme
	min	max	min	max	min	max		
7/1/1990	23.4	32.2	33.1	78.8	755.7	759.1	5.7	
7/2/1990	23.5	30.9	45.2	75.6	754.7	756.2	4.9	
7/3/1990	22.9	29.7	51.8	74.7	755.1	756.5	6.7	
7/4/1990	22.8	27.9	48.0	78.8	754.7	756.9	6.2	
7/5/1990	22.6	29.0	49.8	74.4	755.1	757.6	6.6	
7/6/1990	22.4	28.5	48.8	71.2	754.8	757.0	5.3	
7/7/1990	22.2	31.8	32.1	74.1	756.6	759.1	5.7	
7/8/1990	22.0	31.4	27.5	65.7	757.9	759.5	5.8	
7/9/1990	22.6	31.9	32.6	65.7	758.4	759.7	5.6	
7/10/1990	23.5	30.5	40.9	80.6	755.9	758.5	7.1	
7/11/1990	22.9	31.3	42.0	75.6	755.4	757.5	6.2	
7/12/1990	22.4	31.8	40.0	65.0	757.0	758.2	6.5	
7/13/1990	22.8	30.8	38.5	58.9	755.9	757.8	2.9	
7/14/1990	22.9	31.4	43.8	72.3	755.4	757.3	3.3	
7/15/1990	23.4	30.0	47.9	78.0	757.3	760.9	4.2	
7/16/1990	23.4	31.9	38.3	77.0	760.6	761.7	6.0	
7/17/1990	24.1	30.8	44.1	80.3	758.5	761.4	5.6	
7/18/1990	23.7	30.1	50.1	78.5	755.1	758.5	5.9	
7/19/1990	22.7	30.0	35.9	64.0	755.0	757.6	8.3	
7/20/1990	21.8	31.5	34.2	53.5	757.2	759.7	5.9	
7/21/1990	23.1	31.9	32.5	55.8	758.2	760.0	5.9	
7/22/1990	24.2	34.8	28.2	60.3	757.9	759.4	5.1	
7/23/1990	24.5	32.4	39.9	86.9	758.2	759.4	4.3	
7/24/1990	23.9	29.7	64.7	86.8	757.5	759.2	6.5	
7/25/1990	23.2	31.0	41.8	85.2	756.0	757.9	4.8	
7/26/1990	23.7	30.1	48.4	83.9	755.7	757.3	4.2	
7/27/1990	23.5	32.2	43.6	73.1	756.5	758.4	4.3	
7/28/1990	24.2	34.4	36.1	75.6	755.4	761.1	4.2	
7/29/1990	25.4	33.9	29.3	58.6	760.7	762.2	5.8	
7/30/1990	25.0	31.6	40.5	73.5	758.0	761.0	4.0	
7/31/1990	25.3	30.2	55.8	80.2	758.5	760.1	5.4	
mean	23.4	31.1	41.5	73.0	756.7	758.9	5.4	
max	25.4	34.8	64.7	86.9	760.7	762.2	8.3	
min	21.8	27.9	27.5	53.5	754.7	756.2	2.9	

## July



## August

Table A

Daily Means

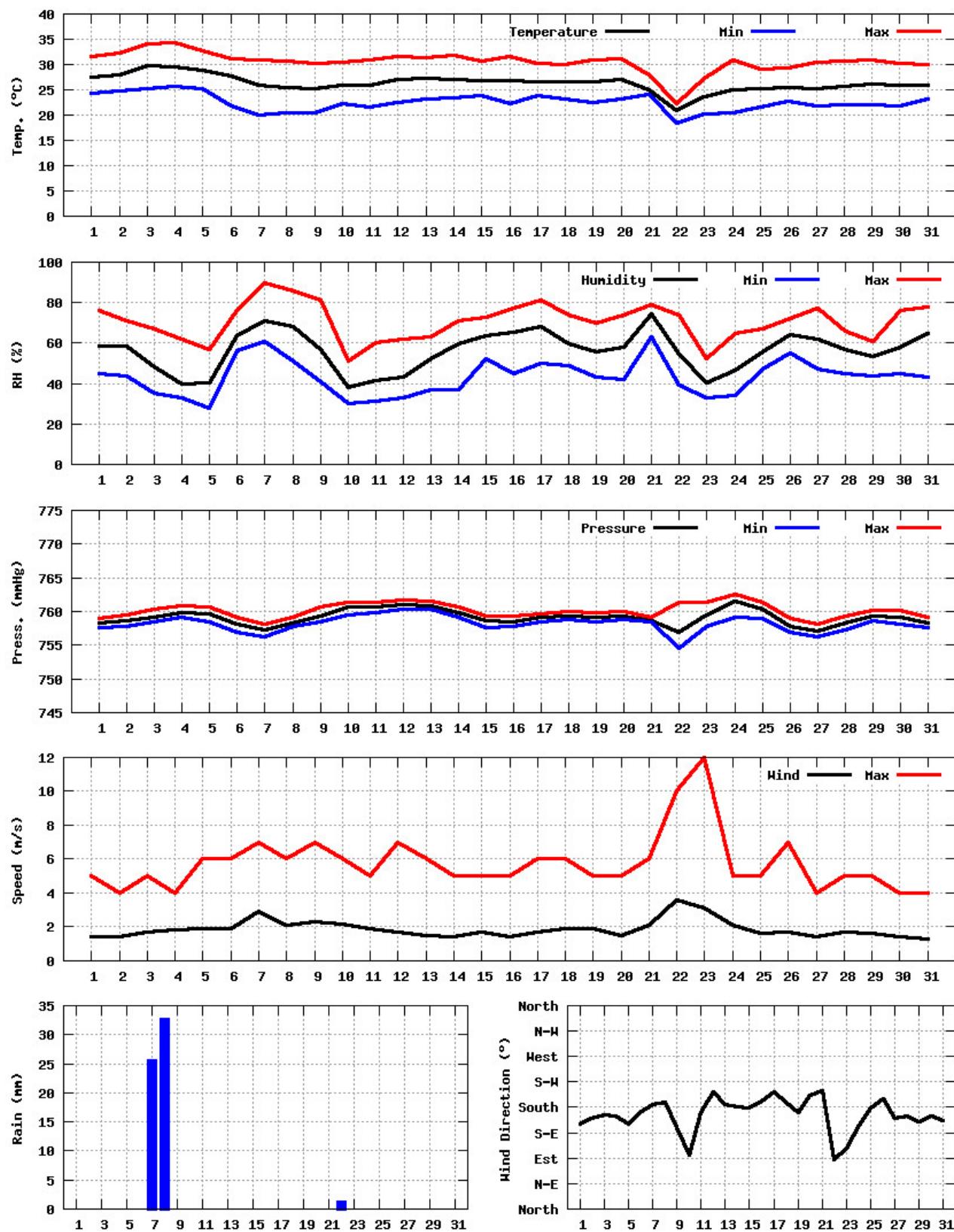
Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Rain mm
8/1/1990	27.4	58.5	758.3	1.4	150	0.4	0.0
8/2/1990	28.0	58.6	758.6	1.4	161	0.3	0.0
8/3/1990	29.7	48.1	759.2	1.7	166	0.3	0.0
8/4/1990	29.5	39.5	759.9	1.8	165	0.4	0.0
8/5/1990	28.9	40.2	759.7	1.9	151	0.4	0.0
8/6/1990	27.7	63.6	758.1	1.9	171	0.4	0.0
8/7/1990	25.9	71.1	757.3	2.9	186	0.3	25.6
8/8/1990	25.4	68.2	758.3	2.1	190	0.4	32.6
8/9/1990	25.2	56.7	759.3	2.3	144	0.4	0.0
8/10/1990	25.8	38.1	760.7	2.2	95	0.4	0.0
8/11/1990	25.9	41.4	760.6	1.9	170	0.4	0.0
8/12/1990	27.0	43.1	761.1	1.7	207	0.4	0.0
8/13/1990	27.2	52.1	760.9	1.5	186	0.4	0.0
8/14/1990	27.1	59.6	759.8	1.4	181	0.4	0.0
8/15/1990	26.8	63.8	758.6	1.7	178	0.4	0.0
8/16/1990	26.8	65.3	758.5	1.4	191	0.4	0.0
8/17/1990	26.6	68.1	759.2	1.7	207	0.4	0.0
8/18/1990	26.6	59.4	759.3	1.9	189	0.4	0.0
8/19/1990	26.5	55.7	759.1	1.9	170	0.4	0.0
8/20/1990	27.0	58.1	759.4	1.5	202	0.4	0.0
8/21/1990	25.1	74.5	758.6	2.1	209	0.3	0.0
8/22/1990	20.8	54.8	756.9	3.6	87	0.0	1.2
8/23/1990	23.7	40.5	759.5	3.1	108	0.4	0.0
8/24/1990	24.9	46.6	761.5	2.1	149	0.4	0.0
8/25/1990	25.3	55.9	760.3	1.6	178	0.4	0.0
8/26/1990	25.4	64.3	757.7	1.7	196	0.3	0.0
8/27/1990	25.2	61.9	757.1	1.4	160	0.3	0.0
8/28/1990	25.7	56.6	758.3	1.7	165	0.3	0.0
8/29/1990	26.2	53.3	759.4	1.6	154	0.3	0.0
8/30/1990	25.8	57.8	759.1	1.4	164	0.3	0.0
8/31/1990	26.0	64.9	758.3	1.3	157	0.3	0.0
mean	26.3	56.1	759.1	1.9	167	0.4	1.9
max	29.7	74.5	761.5	3.6	209	0.4	32.6
min	20.8	38.1	756.9	1.3	87	0.0	0.0
cum							59.4

## August

Table B

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s	daily extreme
	min	max	min	max	min	max		
8/1/1990	24.4	31.6	45.0	76.0	757.6	758.9	5.0	
8/2/1990	24.8	32.3	44.0	71.0	757.8	759.5	4.0	
8/3/1990	25.2	34.2	35.0	67.0	758.4	760.4	5.0	
8/4/1990	25.7	34.4	33.0	62.0	759.1	760.9	4.0	
8/5/1990	25.2	32.8	28.0	57.0	758.4	760.6	6.0	
8/6/1990	21.8	31.2	56.0	76.0	756.9	759.2	6.0	
8/7/1990	19.9	31.0	61.0	90.0	756.3	758.2	7.0	
8/8/1990	20.4	30.6	51.0	86.0	757.8	759.1	6.0	
8/9/1990	20.5	30.2	41.0	81.0	758.4	760.7	7.0	
8/10/1990	22.2	30.5	30.0	51.0	759.5	761.3	6.0	
8/11/1990	21.5	30.9	31.0	60.0	759.8	761.4	5.0	
8/12/1990	22.4	31.7	33.0	62.0	760.4	761.7	7.0	
8/13/1990	23.1	31.3	37.0	63.0	760.3	761.6	6.0	
8/14/1990	23.5	31.9	37.0	71.0	759.1	760.6	5.0	
8/15/1990	23.9	30.7	52.0	73.0	757.6	759.4	5.0	
8/16/1990	22.3	31.6	45.0	77.0	757.8	759.4	5.0	
8/17/1990	23.8	30.2	50.0	81.0	758.4	759.7	6.0	
8/18/1990	23.2	29.9	49.0	74.0	758.8	760.0	6.0	
8/19/1990	22.5	31.0	43.0	70.0	758.4	759.8	5.0	
8/20/1990	23.1	31.1	42.0	74.0	758.8	760.0	5.0	
8/21/1990	24.0	28.0	63.0	79.0	758.4	759.2	6.0	
8/22/1990	18.3	22.3	39.0	74.0	754.5	761.3	10.0	
8/23/1990	20.2	27.3	33.0	52.0	757.8	761.4	12.0	
8/24/1990	20.5	30.8	34.0	65.0	759.2	762.6	5.0	
8/25/1990	21.7	29.2	47.0	67.0	758.9	761.4	5.0	
8/26/1990	22.7	29.3	55.0	72.0	756.9	758.9	7.0	
8/27/1990	21.8	30.5	47.0	77.0	756.3	758.1	4.0	
8/28/1990	22.0	30.7	45.0	66.0	757.3	759.4	5.0	
8/29/1990	22.1	30.8	44.0	61.0	758.7	760.1	5.0	
8/30/1990	21.9	30.3	45.0	76.0	758.2	760.1	4.0	
8/31/1990	23.2	30.1	43.0	78.0	757.6	759.1	4.0	
mean	22.5	30.6	43.2	70.6	758.2	760.1	5.7	
max	25.7	34.4	63.0	90.0	760.4	762.6	12.0	
min	18.3	22.3	28.0	51.0	754.5	758.1	4.0	

## August



## September

**Table A**

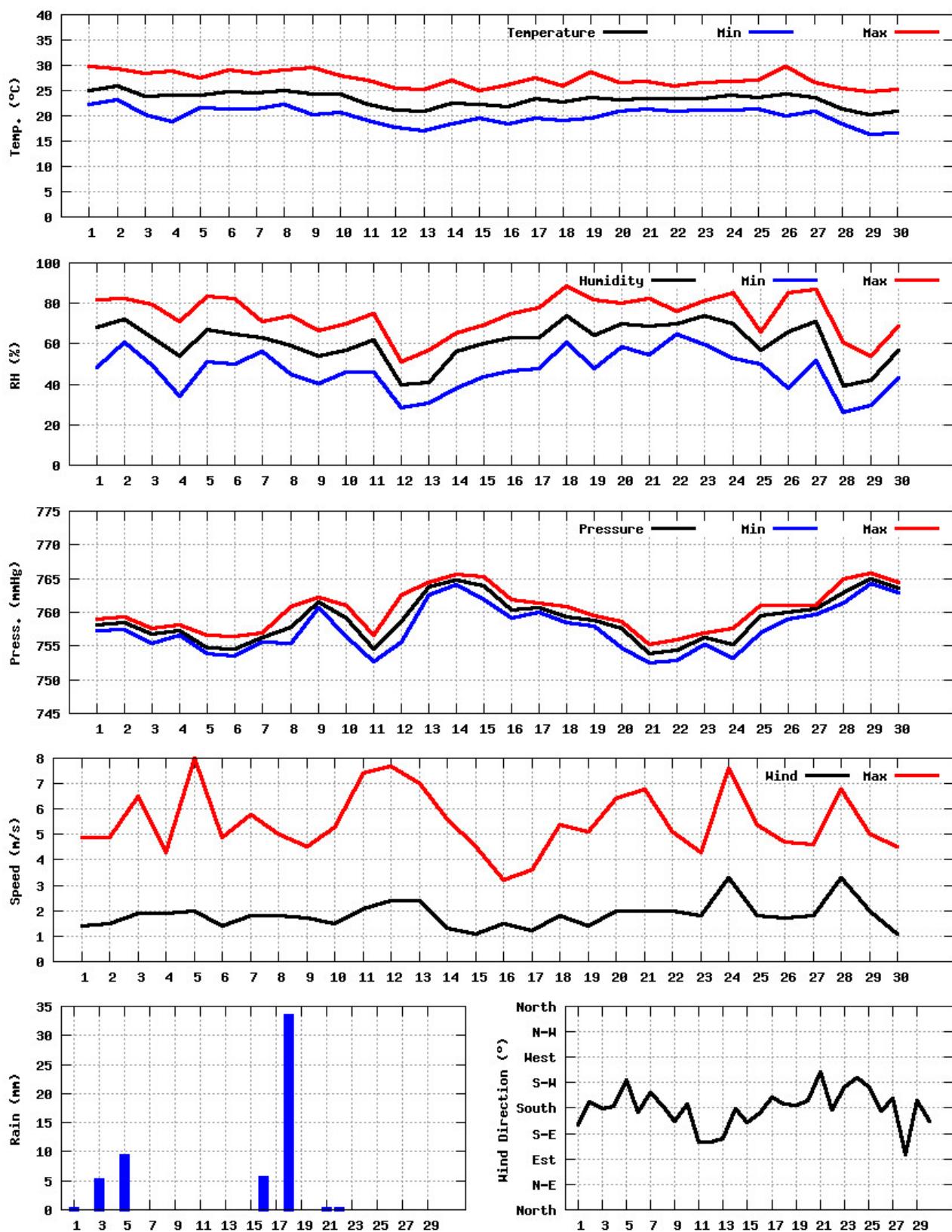
Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Rain mm	Daily Means
				m/s	dir.			
9/1/1990	25.1	68.0	758.2	1.4	150	0.2	0.2	
9/2/1990	25.8	72.0	758.4	1.5	192	0.3	0.0	
9/3/1990	23.9	63.0	756.7	1.9	178	0.3	5.2	
9/4/1990	24.2	54.0	757.3	1.9	184	0.4	0.0	
9/5/1990	24.2	67.0	754.8	2.0	230	0.3	9.2	
9/6/1990	24.7	65.0	754.6	1.4	172	0.4	0.0	
9/7/1990	24.6	63.0	756.2	1.8	208	0.3	0.0	
9/8/1990	25.1	59.0	757.7	1.8	184	0.3	0.0	
9/9/1990	24.3	54.0	761.5	1.7	156	0.3	0.0	
9/10/1990	24.3	57.0	759.2	1.5	188	0.3	0.0	
9/11/1990	22.3	62.0	754.5	2.1	119	0.2	0.0	
9/12/1990	21.2	40.0	758.7	2.4	120	0.3	0.0	
9/13/1990	21.0	41.0	763.7	2.4	127	0.3	0.0	
9/14/1990	22.5	56.0	764.8	1.3	179	0.3	0.0	
9/15/1990	22.3	60.0	763.9	1.1	154	0.2	0.0	
9/16/1990	21.9	63.0	760.4	1.5	171	0.3	5.6	
9/17/1990	23.3	63.0	760.7	1.2	200	0.3	0.0	
9/18/1990	22.8	74.0	759.3	1.8	188	0.3	33.4	
9/19/1990	23.6	64.0	758.8	1.4	186	0.3	0.0	
9/20/1990	23.2	70.0	757.6	2.0	194	0.3	0.0	
9/21/1990	23.5	69.0	753.8	2.0	244	0.3	0.2	
9/22/1990	23.3	70.0	754.4	2.0	177	0.2	0.2	
9/23/1990	23.5	74.0	756.3	1.8	218	0.2	0.0	
9/24/1990	24.0	70.0	755.2	3.3	233	0.2	0.0	
9/25/1990	23.6	57.0	759.5	1.8	217	0.3	0.0	
9/26/1990	24.3	66.0	760.0	1.7	175	0.2	0.0	
9/27/1990	23.6	71.0	760.5	1.8	198	0.2	0.0	
9/28/1990	21.4	39.0	762.9	3.3	97	0.3	0.0	
9/29/1990	20.3	42.0	764.9	2.0	193	0.3	0.0	
9/30/1990	20.8	57.0	763.6	1.1	156	0.3	0.0	
mean	23.3	61.0	758.9	1.8	180	0.3	54.0	
max	25.8	74.0	764.9	3.3	244	0.4	33.4	
min	20.3	39.0	753.8	1.1	97	0.2	0.0	
cum							54.0	

## September

**Table B**

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s	daily extreme
	min	max	min	max	min	max		
9/1/1990	22.2	29.8	48.5	82.1	757.2	758.9	4.9	
9/2/1990	23.1	29.3	60.7	82.4	757.5	759.4	4.9	
9/3/1990	20.3	28.3	49.2	79.4	755.4	757.6	6.5	
9/4/1990	18.9	28.9	34.2	70.9	756.6	758.1	4.3	
9/5/1990	21.5	27.6	51.4	83.5	753.8	756.6	8.0	
9/6/1990	21.4	29.1	50.1	82.4	753.5	756.5	4.9	
9/7/1990	21.4	28.4	56.2	71.1	755.6	756.9	5.8	
9/8/1990	22.2	29.1	45.1	73.9	755.4	760.9	5.0	
9/9/1990	20.3	29.5	40.5	66.5	760.7	762.3	4.5	
9/10/1990	20.6	28.0	46.0	70.1	756.5	761.1	5.3	
9/11/1990	19.2	27.0	46.0	75.1	752.6	756.6	7.4	
9/12/1990	17.7	25.5	28.3	51.0	755.6	762.5	7.7	
9/13/1990	17.1	25.2	30.5	56.7	762.6	764.5	7.0	
9/14/1990	18.5	27.0	38.3	65.4	764.1	765.7	5.6	
9/15/1990	19.5	25.1	43.5	69.6	761.9	765.2	4.5	
9/16/1990	18.3	26.1	46.8	75.2	759.2	761.9	3.2	
9/17/1990	19.6	27.4	47.7	77.8	760.0	761.4	3.6	
9/18/1990	19.2	26.0	60.9	88.8	758.5	760.9	5.4	
9/19/1990	19.5	28.6	47.6	81.6	757.9	759.5	5.1	
9/20/1990	20.8	26.7	58.5	80.1	754.7	758.7	6.4	
9/21/1990	21.4	26.8	54.8	82.2	752.5	755.3	6.8	
9/22/1990	21.0	25.8	64.7	75.9	752.8	755.9	5.1	
9/23/1990	21.1	26.5	59.8	81.2	755.3	757.0	4.3	
9/24/1990	21.1	26.8	53.0	85.2	753.1	757.6	7.6	
9/25/1990	21.4	27.0	49.9	65.8	757.0	761.0	5.4	
9/26/1990	19.9	29.8	38.0	85.2	758.9	761.0	4.7	
9/27/1990	20.8	26.6	51.8	87.1	759.7	761.1	4.6	
9/28/1990	18.4	25.4	26.3	60.9	761.3	765.0	6.8	
9/29/1990	16.3	24.8	29.8	53.7	764.2	765.8	5.0	
9/30/1990	16.7	25.3	43.2	68.6	762.9	764.5	4.5	
mean	20.0	27.2	46.7	74.3	757.6	760.3	5.5	
max	23.1	29.8	64.7	88.8	764.2	765.8	8.0	
min	16.3	24.8	26.3	51.0	752.5	755.3	3.2	

## September



## October

Table A

Daily Means

Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Rain mm
				m/s	dir.		
10/1/1990	21.6	68.8	762.4	1.2	177	0.3	0.0
10/2/1990	22.9	74.8	761.1	1.1	185	0.2	0.0
10/3/1990	23.1	74.3	759.3	1.5	162	0.2	0.0
10/4/1990	23.2	74.8	758.0	1.7	157	0.2	0.0
10/5/1990	21.7	74.8	759.0	1.3	169	0.2	2.8
10/6/1990	22.0	70.5	760.1	1.7	163	0.2	2.0
10/7/1990	19.9	79.6	755.4	2.8	172	0.1	46.6
10/8/1990	20.4	77.5	755.0	1.5	168	0.1	8.6
10/9/1990	20.5	61.1	760.5	3.5	190	0.2	0.0
10/10/1990	20.1	52.2	763.4	3.1	212	0.1	0.0
10/11/1990	22.9	54.4	763.9	1.2	167	0.2	0.0
10/12/1990	25.1	49.5	764.8	1.5	186	0.2	0.0
10/13/1990	25.1	50.3	763.8	1.1	200	0.1	0.0
10/14/1990	25.9	50.6	761.3	2.0	177	0.2	0.0
10/15/1990	23.9	54.6	760.7	1.5	191	0.2	0.0
10/16/1990	23.0	63.9	760.9	1.6	196	0.2	0.0
10/17/1990	21.5	74.1	758.5	1.3	156	0.1	0.0
10/18/1990	21.9	75.2	758.4	1.9	170	0.2	0.0
10/19/1990	21.7	71.4	756.0	2.5	198	0.1	0.0
10/20/1990	19.3	76.6	751.5	2.2	197	0.1	0.0
10/21/1990	19.7	72.5	754.6	1.7	217	0.2	0.0
10/22/1990	17.4	50.8	760.0	3.0	68	0.1	0.0
10/23/1990	15.5	45.5	761.7	3.0	79	0.2	0.0
10/24/1990	17.7	61.5	758.8	2.4	134	0.2	8.7
10/25/1990	17.5	69.5	758.3	2.6	205	0.2	24.8
10/26/1990	18.2	70.0	756.5	1.9	241	0.2	3.6
10/27/1990	16.9	80.8	755.5	1.9	212	0.0	38.4
10/28/1990	17.4	70.3	752.6	1.2	212	0.1	0.0
10/29/1990	18.4	74.5	748.6	2.3	205	0.1	8.0
10/30/1990	21.4	80.4	750.2	2.3	229	0.1	0.0
10/31/1990	21.3	83.0	755.5	3.4	192.0	0.1	0.0
mean	20.9	67.3	758.3	2.0	180	0.2	4.6
max	25.9	83.0	764.8	3.5	241	0.3	46.6
min	15.5	45.5	748.6	1.1	68	0.0	0.0
sum							143.5

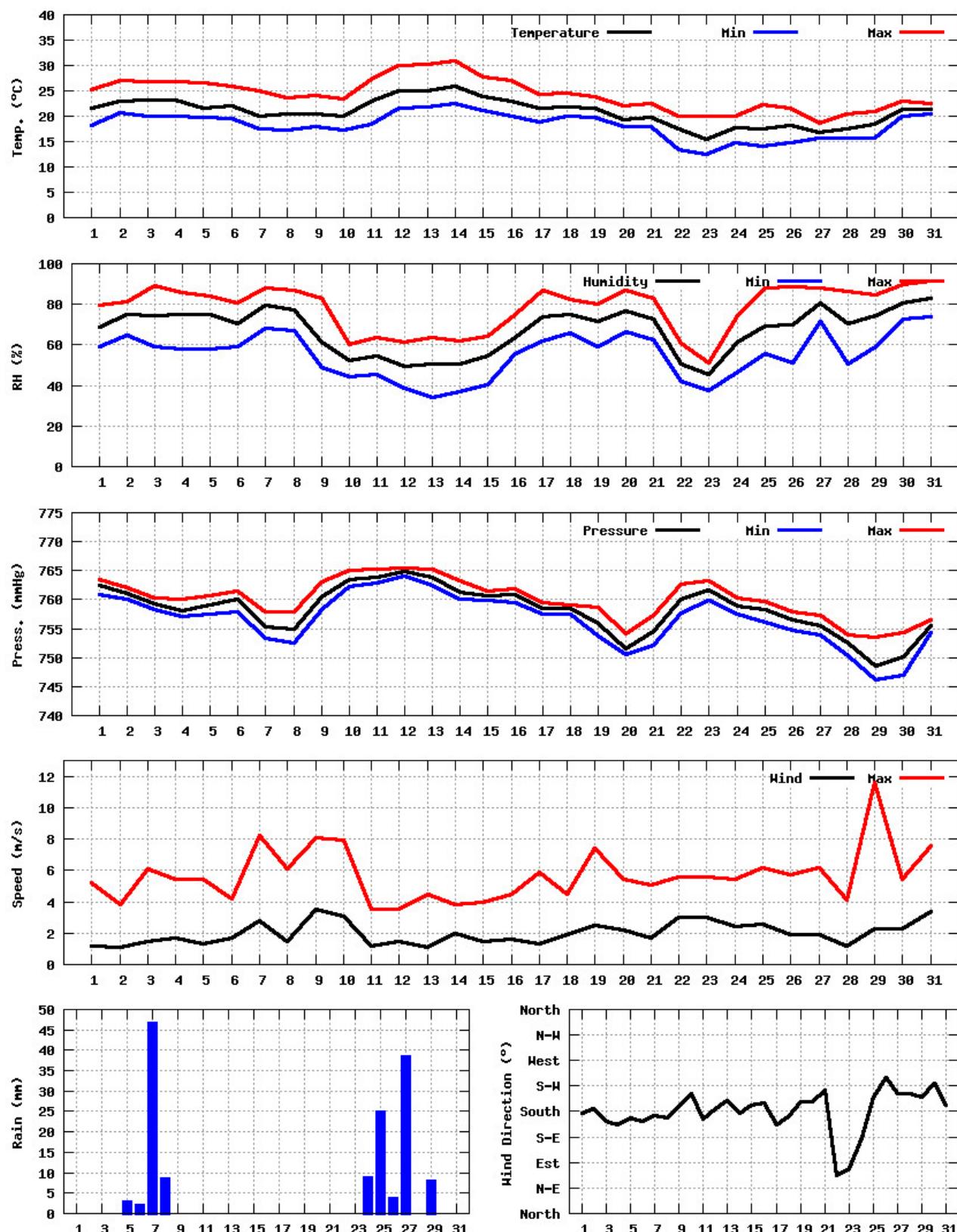
## October

Table B

daily extreme

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s
	min	max	min	max	min	max	
10/1/1990	18.2	25.2	59.0	79.4	760.9	763.5	5.2
10/2/1990	20.7	27.1	64.6	81.3	760.0	762.0	3.8
10/3/1990	20.1	26.8	59.2	89.3	758.2	760.3	6.1
10/4/1990	20.0	26.8	58.1	86.0	757.2	760.1	5.4
10/5/1990	19.8	26.5	58.1	84.1	757.5	760.7	5.4
10/6/1990	19.6	26.0	58.9	80.5	757.9	761.4	4.2
10/7/1990	17.5	24.9	68.4	87.8	753.4	757.9	8.2
10/8/1990	17.2	23.6	66.8	86.8	752.6	757.9	6.1
10/9/1990	17.9	24.2	48.7	82.8	758.2	763.0	8.1
10/10/1990	17.2	23.5	44.2	60.0	762.3	765.0	7.9
10/11/1990	18.5	27.2	45.4	63.5	762.8	765.2	3.5
10/12/1990	21.6	30.0	38.6	61.5	764.1	765.5	3.5
10/13/1990	21.8	30.2	34.2	63.6	762.5	765.2	4.5
10/14/1990	22.5	30.8	37.1	61.7	760.1	763.2	3.8
10/15/1990	21.1	27.8	40.3	64.1	759.8	761.4	4.0
10/16/1990	20.1	27.1	55.4	74.8	759.4	761.9	4.5
10/17/1990	18.9	24.3	62.1	87.2	757.5	759.4	5.9
10/18/1990	20.1	24.5	65.7	82.4	757.5	759.1	4.5
10/19/1990	19.8	23.9	59.0	80.2	753.7	758.7	7.4
10/20/1990	18.0	22.0	66.2	87.2	750.6	754.1	5.4
10/21/1990	18.0	22.6	62.3	82.9	752.2	757.3	5.1
10/22/1990	13.3	19.9	41.8	60.7	757.7	762.6	5.6
10/23/1990	12.5	19.9	37.6	51.4	759.8	763.2	5.6
10/24/1990	14.8	20.0	46.4	74.5	757.5	760.3	5.4
10/25/1990	14.2	22.3	55.8	88.3	756.2	759.7	6.2
10/26/1990	14.7	21.6	51.2	88.6	754.8	757.9	5.7
10/27/1990	15.6	18.6	71.6	87.9	754.0	757.3	6.2
10/28/1990	15.6	20.4	50.8	86.1	750.3	754.0	4.1
10/29/1990	15.6	20.9	59.1	84.6	746.1	753.5	11.6
10/30/1990	20.1	22.9	72.6	89.5	746.9	754.4	5.4
10/31/1990	20.5	22.6	73.6	91.2	754.3	756.6	7.6
mean	18.2	24.3	55.3	78.4	756.6	760.1	5.7
max	22.5	30.8	73.6	91.2	764.1	765.5	11.6
min	12.5	18.6	34.2	51.4	746.1	753.5	3.5

## October



## November

Table A

Daily Means

Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Rain mm
				m/s	dir.		
11/1/1990	20.8	77.7	754.9	3.4	217	0.1	0.2
11/2/1990	18.1	57.3	755.8	2.3	270	0.1	0.0
11/3/1990	17.4	66.5	754.0	2.5	237	0.1	6.2
11/4/1990	15.8	63.0	753.4	1.7	238	0.2	0.0
11/5/1990	13.9	57.3	757.0	1.8	181	0.1	2.6
11/6/1990	14.0	49.7	761.3	1.9	231	0.2	0.0
11/7/1990	11.8	47.9	762.1	2.7	143	0.2	0.0
11/8/1990	11.3	43.4	763.6	2.9	138	0.2	0.0
11/9/1990	11.7	47.0	764.9	2.9	144	0.2	0.0
11/10/1990	12.1	46.0	766.0	2.1	216	0.2	0.0
11/11/1990	13.0	47.9	765.9	2.0	219	0.2	0.0
11/12/1990	13.0	48.2	762.8	2.1	144	0.1	0.0
11/13/1990	14.1	52.0	762.6	3.1	120	0.2	0.0
11/14/1990	13.9	53.7	760.9	3.0	196	0.2	0.0
11/15/1990	14.2	55.9	759.3	3.3	204	0.2	0.0
11/16/1990	16.7	64.8	760.3	3.1	98	0.1	1.4
11/17/1990	17.1	61.1	761.4	2.0	129	0.1	0.4
11/18/1990	17.2	72.3	759.0	1.9	213	0.2	0.0
11/19/1990	17.3	69.1	754.0	1.5	171	0.1	0.0
11/20/1990	16.6	71.2	754.6	2.0	255	0.1	3.2
11/21/1990	17.8	70.2	756.7	2.9	212	0.1	0.0
11/22/1990	18.3	70.1	757.7	5.7	171	0.2	0.0
11/23/1990	19.1	70.8	757.2	6.3	191	0.2	12.0
11/24/1990	12.5	70.5	755.1	2.9	204	0.2	7.2
11/25/1990	16.6	71.6	756.1	2.2	195	0.2	2.4
11/26/1990	16.6	72.9	757.0	2.2	195	0.2	0.0
11/27/1990	15.0	70.5	755.3	2.7	196	0.2	18.8
11/28/1990	12.6	69.8	755.7	2.7	222	0.2	16.8
11/29/1990	12.8	67.3	754.0	2.9	246	0.2	14.8
11/30/1990	11.6	67.9	752.6	1.7	290	0.0	10.0
mean	15.1	61.8	758.4	2.7	196	0.2	3.2
max	20.8	77.7	766.0	6.3	290	0.2	18.8
min	11.3	43.4	752.6	1.5	98	0	0.0
sum							96.0

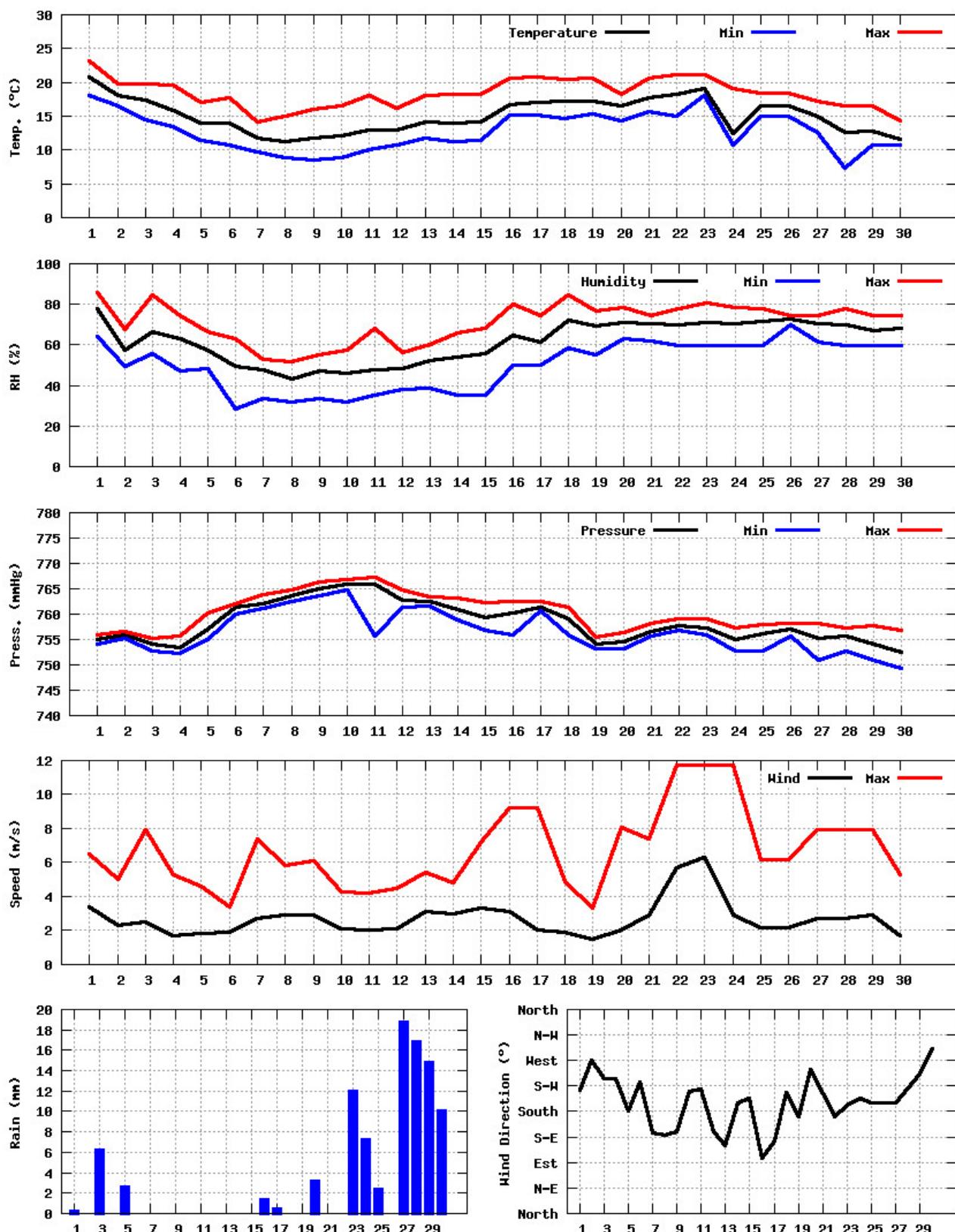
## November

**Table B**

daily extreme

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s
	min	max	min	max	min	max	
11/1/1990	18.0	23.1	64.0	85.7	754.0	756.0	6.5
11/2/1990	16.6	19.8	49.3	67.4	755.3	756.7	5.0
11/3/1990	14.5	19.8	55.7	84.9	752.8	755.3	7.9
11/4/1990	13.5	19.6	47.4	74.6	752.2	755.6	5.3
11/5/1990	11.4	17.1	48.4	66.3	755.1	760.3	4.6
11/6/1990	10.7	17.8	28.3	62.9	760.1	762.0	3.4
11/7/1990	9.7	14.1	33.6	53.1	761.1	763.8	7.4
11/8/1990	8.8	15.0	32.1	51.8	762.5	764.7	5.8
11/9/1990	8.5	16.0	33.7	55.3	763.6	766.4	6.1
11/10/1990	8.8	16.6	32.0	57.3	764.8	766.9	4.3
11/11/1990	10.0	18.1	35.3	68.3	755.6	767.3	4.2
11/12/1990	10.7	16.2	38.2	56.5	761.3	764.7	4.5
11/13/1990	11.7	18.1	38.6	60.4	761.7	763.3	5.4
11/14/1990	11.2	18.3	35.5	65.8	758.8	763.2	4.8
11/15/1990	11.5	18.3	35.5	67.9	756.9	762.3	7.2
11/16/1990	15.2	20.7	50.2	79.9	756.0	762.6	9.2
11/17/1990	15.2	20.8	50.2	74.2	760.6	762.6	9.2
11/18/1990	14.6	20.4	58.5	84.7	755.9	761.3	4.9
11/19/1990	15.3	20.7	55.2	76.7	753.1	755.4	3.3
11/20/1990	14.4	18.2	62.9	78.6	753.1	756.3	8.1
11/21/1990	15.6	20.7	62.1	74.7	755.7	758.1	7.4
11/22/1990	15.0	21.1	59.8	77.7	756.9	759.1	11.7
11/23/1990	18.1	21.1	59.8	80.6	755.9	759.1	11.7
11/24/1990	10.8	19.1	59.6	78.3	752.8	757.3	11.7
11/25/1990	15.0	18.4	59.6	77.7	752.8	757.9	6.2
11/26/1990	15.0	18.4	70.0	74.7	755.7	758.1	6.2
11/27/1990	12.6	17.3	61.2	74.7	751.0	758.1	7.9
11/28/1990	7.4	16.5	59.6	77.7	752.8	757.3	7.9
11/29/1990	10.8	16.5	59.6	74.7	751.0	757.8	7.9
11/30/1990	10.8	14.3	59.6	74.2	749.3	756.9	5.3
mean	12.7	18.4	49.9	71.2	756.3	760.2	6.7
max	18.1	23.1	70.0	85.7	764.8	767.3	11.7
min	7.4	14.1	28.3	51.8	749.3	755.3	3.3

## November



## December

Table A

Daily Means

Date	Temperature °C	Humidity %	Pressure mmHg	Wind		Solar Rad. langley/min	Rain mm
12/1/1990	7.8	44.7	756.0	4.0	113	NP	9.2
12/2/1990	6.0	59.0	758.9	1.7	151	NP	0.0
12/3/1990	6.0	59.0	758.9	1.7	151	NP	0.0
12/4/1990	9.2	59.4	758.9	1.4	153	NP	0.0
12/5/1990	9.2	58.0	756.5	2.0	99	NP	0.0
12/6/1990	7.8	50.7	756.0	4.0	113	NP	0.0
12/7/1990	6.0	59.0	758.9	1.7	151	NP	8.2
12/8/1990	9.1	67.3	760.0	3.0	212	NP	6.6
12/9/1990	15.7	71.2	753.4	10.2	179	NP	0.6
12/10/1990	13.0	59.7	749.0	6.5	238	NP	11.4
12/11/1990	12.1	57.7	750.5	4.5	231	NP	15.6
12/12/1990	9.4	71.2	744.8	2.5	163	NP	5.4
12/13/1990	8.8	70.6	740.5	3.4	169	NP	5.6
12/14/1990	8.9	65.8	749.3	1.9	201	NP	0.4
12/15/1990	9.4	55.3	756.3	2.1	214	NP	0.2
12/16/1990	7.9	59.2	759.1	2.4	166	NP	0.0
12/17/1990	8.2	50.3	760.8	3.0	158	NP	0.0
12/18/1990	8.8	55.0	761.4	2.5	169	NP	0.0
12/19/1990	9.6	59.8	762.3	2.5	273	NP	0.0
12/20/1990	9.0	61.1	764.4	1.8	207	NP	0.0
12/21/1990	8.7	59.6	765.0	1.7	206	NP	0.0
12/22/1990	8.8	55.0	761.4	2.5	169	NP	0.0
12/23/1990	10.3	54.5	763.0	2.6	154	NP	0.0
12/24/1990	9.8	68.0	759.1	3.8	174	NP	17.6
12/25/1990	10.1	69.0	760.8	3.6	241	NP	0.0
12/26/1990	11.1	64.8	760.9	1.2	153	NP	0.0
12/27/1990	11.1	74.7	760.3	1.4	194	NP	13.6
12/28/1990	12.3	74.8	761.3	1.8	211	NP	1.6
12/29/1990	10.8	66.4	768.2	1.6	220	NP	0.0
12/30/1990	12.2	72.7	770.0	1.0	207	NP	0.0
12/31/1990	13.5	74.8	767.2	0.8	207	NP	0.0
mean	9.7	62.2	758.5	2.7	182	NP	3.1
max	15.7	74.8	770.0	10.2	273	NP	17.6
min	6.0	44.7	740.5	0.8	99	NP	0.0
sum							96

## December

Table B

daily extreme

Date	Temperature °C		Humidity %		Pressure mmHg		Wind m/s
	min	max	min	max	min	max	
12/1/1990	6.6	9.1	33.3	57.4	753.8	758.4	11.9
12/2/1990	4.6	9.0	40.0	78.3	757.8	760.3	4.4
12/3/1990	4.6	9.0	40.0	78.3	757.8	760.3	4.4
12/4/1990	6.5	11.6	51.3	69.7	756.3	760.3	2.8
12/5/1990	6.5	11.7	49.8	69.7	753.1	759.1	6.5
12/6/1990	6.6	9.1	44.7	57.4	753.8	758.4	11.9
12/7/1990	4.6	9.0	40.0	78.3	757.8	760.3	4.4
12/8/1990	4.4	13.4	57.8	83.6	758.7	761.0	8.4
12/9/1990	12.8	17.7	64.6	77.3	747.2	758.4	23.6
12/10/1990	11.5	17.7	48.0	86.9	745.9	761.4	22.0
12/11/1990	10.3	13.5	48.0	73.3	747.5	761.4	9.9
12/12/1990	7.5	11.6	58.0	80.5	739.0	750.4	9.5
12/13/1990	7.5	10.6	64.2	80.5	737.8	745.0	9.5
12/14/1990	7.3	11.7	51.9	72.2	743.0	757.0	4.4
12/15/1990	8.0	11.6	45.4	63.9	754.0	758.7	5.0
12/16/1990	6.7	9.0	56.0	64.0	758.4	760.6	3.8
12/17/1990	6.2	11.4	37.9	58.4	760.4	761.9	7.0
12/18/1990	6.5	11.9	47.4	59.3	760.4	762.5	6.5
12/19/1990	8.0	11.0	53.6	64.1	761.7	763.5	4.3
12/20/1990	6.4	13.0	48.1	68.9	763.0	765.5	3.8
12/21/1990	5.8	13.0	48.1	65.8	763.8	766.3	3.0
12/22/1990	6.5	11.9	47.4	59.3	760.4	762.5	6.5
12/23/1990	6.4	14.9	33.7	68.9	760.7	765.2	5.9
12/24/1990	8.0	11.8	48.8	79.7	757.8	760.6	6.5
12/25/1990	9.0	12.3	59.7	72.8	758.9	761.7	5.7
12/26/1990	8.6	14.5	55.4	71.1	760.1	761.6	2.3
12/27/1990	3.0	13.6	60.9	86.3	759.4	761.4	4.2
12/28/1990	9.6	16.3	60.4	84.6	758.5	765.4	3.9
12/29/1990	7.9	14.7	56.2	74.2	765.4	770.4	3.7
12/30/1990	7.9	14.2	56.2	78.0	765.4	771.4	1.9
12/31/1990	12.3	15.1	67.5	79.4	765.1	769.1	3.3
mean	7.4	12.4	50.8	72.3	756	761.3	6.8
max	12.8	17.7	67.5	86.9	765.4	771.4	23.6
min	3.0	9.0	33.3	57.4	737.8	745.0	1.9

## December

