THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 16 NUMBER 1

JANUARY, 1973

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

National Oceanic and Atmospheric Administration

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
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PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT — CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues serveral reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :
"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields

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FOREWORD

Since 1909 the Meteorological Department of Egypt has been issuing regularly the Monthly Weather Report, giving a brief summary of the weather conditions prevailing over Egypt during the month. These reports used to include a table giving limited climatological data for some selected surface observations.

On January 1954, the Monthly Weather Report has been revised and the general summary of the weather conditions has been extended to give a more detailed description of the synoptic situations and the associated weather prevailing during the month.

On February 1955 a further extension took place, the general summary of the weather conditions has been classified into different items to give more comprehensive information. More detailed surface climatological tables for selected stations and table for miscellaneous weather phenomena have been added to the Report.

On January 1956, the climatological tables included in the Report have been extended to include upper air climatological data to meet the increasing demand for this information.

In addition the full text of the monthly report of the standard observations taken at the Central Agro-Meteorological Station at Giza has been included in this Report instead of issuing it as a separate bulletin.

On January 1957, the Report has been completely revised, a new set of meteorological tables has been introduced to give, as far as possible, complete infromation for surface and upper air data from a more representative network of stations.

In addition, a general review of the observations taken in the fields of the plant breeding farm at Giza is included in the Report. The review gives a brief summary of the characteristic features of the different meteorological and micrometeorological elements of the month, more weight is given in this review to those elements which are of interest to agriculturists.

Starting from the Report of January 1958, the Monthly Weather Report for Egypt included a detailed description of the synoptic situations and the associated weather experienced all over the Republic during the month. The Report included a new set of tables giving more detailed surface and upper air climatological data for selected stations in the Republic. The review of the Agrometeorological station at Giza and the normal observations made at the field of the station were also included in the Report.

As from January 1960, these tables have been totally revised and some new tables have been introduced to include more detailed climatological data.

In order to explain how the tables included in these Monthly Weather Reports have been compiled, detailed notes are included in the Report of January giving informations about the instruments used and their exposure, the methods of observations and the methods of computing the means and frequencies.

As from January 1964, the Monthly Weather Report was again totally revised. The number of meteorological stations appearing in the Report have been concentrated in the main synoptic stations working mostly continuously 24 hours. In addition climatological data included in the Report will be confined to the monthly mean values, monthly totals, monthly frequencies and monthly absolute values. More specific climatological data have to be requested from the Meteorological Authority.

Starting from the Report of January 1958, the monthly Weather Report of Egypt carries serial reference in volume and number; each year carries a serial number in volume, Number I, being for January and 12 for December. The reference number of January 1958 is volume I, number I.

Cairo, March 1975

Chairman (M. F. TAHA)
Board of Directors

INTRODUCTION AND EXPLANATION OF THE TABLES

For the purpose of this Monthly Weather Report, the Arab Republic of Egypt is divided into six climatic districts as follows :

Number	District	Number	District
I	Mediterranean Area	IV	Upper Egypt
II	Lower Egypt	V	Western Desert
III	Cairo Area	VI	Red Sea Area

The data included in Tables A1, A2 A3, A4 & A5, are based on surface observations made at a representative selection of the basic network of synoptic stations. The data included in Tables B1, B2 & B3 refer to Upper Air observations. The data included in Tables C1, C2, C3, C4 & C5, are based on observations taken at the Agro-Meteorological stations at Bahitm, Tahrir, Mersa Matruh and Kharga. The observation fields are considered for the moment as dry and bare fields. At Kharga Oasis, the observation field is of the size of about 4000-6000 square metres.

The soil characteristics of these fields are :

	MERSA MATRUH	TAHRIR	BAHTIM	KHARGA
Top soil type	not available at present	Pure sand	Permeable clay	Sandy loam granular non-compact
Top soil depth	,,	More than 3 metres.	More than 1.5 metres	20 cms.
Sub soil type	,,	Pure sand	Clay loam aud loam	Platy clay. non compact
Slope of ground and its direction	,,	½% towards East & North	Flat (0-0.3%)	Flat (0-0.3%)
Level of water table	,,	More than 5 metres	1.0-1.5m. approximtaely.	More than 5 metres

Except for the wind speed which is expressed in knots, the metric units are used throughout this report and are as follows :

—The atmospheric pressure is expressed in millibars (one millibar = 1000 dynes per square centimetre = the pressure due to 0.7501 millimetre of mercury at 0°C at latitude 45°).

—Air and soil temperatures in degrees celsius (°C).

—Relative humidity (%),

—Rainfall in millimetres,

—Snow depth in centimetres,

—Duration of bright sunshine in hours,

—Sky cover in octas,

—Evaporation in millimetres,

—Altitude of pressure surface in geopotential metres,

—Mean wind speed of the whole day, and of the day-time and the night-time intervals in metres per second,

—(Solar + Sky) radiation in gram-calories per centimetre square,

—Vapour pressure in millimetres

TABLE A1.—**Monthly values of the Atmospheric Pressure, Air Temperature, Relative Humidity, Bright Sunshine Duration & Piche Evaporation**

Atmospheric Pressure.

The monthly mean values of the daily atmospheric pressure corrected to Mean Sea Level (M.S.L.) are the arithmetic means over the month of their corresponding daily hourly values or of the daily observations taken at the 8 synoptic hours (00,03, 06, 09, 12, 15, 18 & 21 UT). The atmospheric pressure is measured by mercury barometers installed indoors; The Mean Sea Level Pressure (M.S.L.) is the barometer reading corrected for the height of the barometer cistern above or (below) the Mean Sea Level at the station. Corrections for index, temperature and latitude have been applied to the barometer readings before reduction to M.S.L. Deviations from normals appear besides monthly mean values in a separate column.

Air Temperature :

The monthly mean values of the maximum (A) and of the minimum (B) air temperatures are computed from their corresponding daily routine values observed over the month. The maximum (mercury) and the minimum (alcohol) thermometers are freely exposed in the louvred screens with their bulbs at a height of 160 to 170 centimetres above the ground. Deviations from normals appear besides monthly mean values.

The monthly mean values of (A + B)/2 are computed from their corresponding daily calculated values over the month.

The monthly mean values of the dry and of the wet bulb air temperatures are the arithmetic means over the month of their corresponding daily hourly values or of their corresponding values at the 8 synoptic hours (00, 03, 06, 09 12, 15, 18 & 21 UT). The dry and wet bulb thermometers used are of the mercury type and are freely exposed in sloping double roofed louvred screens with their bulbs at a height of 140-150 centimetres above the ground. Deviations from normals appear besides monthly mean values in a separate coulmn.

Relative Humidity :

The mean daily R. Humidity during the month is derived from the mean daily values of the dry and wet bulb temperatures using Jelinek's Psychrometer Tables (Leipzig 1911). The mean daily values of the dry and wet bulb air temperatures are as indicated in the last paragraph. No corrections for wind speeds or atmospheric pressure are applied. Deviations from normals appear besides monthly mean values in a separate column.

Bright Sunshine Duration

The actual duration of bright sunshine for the month is the sum of the actual daily bright sunshine durations. The total possible duration for the month is the sum of the daily calculated periods between sunrise and sunset. In calculating the possible duration of sunshine for a given day, the periods of cut-off for that day caused by obstacles, such as mountains are eliminated from the possible duration with an ideal flat horizon. In case of stations where the record of day or more is or are missing, the total actual duration is given between brackets and a note is added at the end of the table giving the actual number of records (days) used in summing up this total actual. In such cases the corresponding total possible duration is also given in brackets and it is the sum of the possilbe duration of the days of the available records. The percentage of the actual to the possible duration appears besides the total possible values in a separate column. The duration of bright sunshine is measured by the Campbell-Stokes sunshine recorders which are suitably exposed.

Evaporation (Piche) :

The monthly mean value of piche evaporation is computed from its daily routine values observed at 0600 UT over the month. Evaporation measurements are taken once daily at 0600 UT and give the evaporation for the previous 24 hours. The evaporation readings are measured by a piche tube freely exposed in sloping double roofed louvred screens, the evaporation disc has an effective area of 10.1 centimetres square, white in colour, and at a height of 140-150 centimetres above the ground.

TABLE A2.—**Maximum & Minimum Air Temperatures**

Higher and lower limits of both maximum and minimum temperatures and their corresponding dates of occurrences during the month are extracted from the daily readings of maximum (mercury) and minimum (alcohol) thermometers respectively. These dates are included for actual occurrences up to three ; when exceeding three, the symbol* is added beside the last three dates.

The number of days during the month with maximum air temperature above 25°C, 30°C, 35°C, 40°C &45°C and with minimum air temperature below 10°C, 5°C, 0°C & —5°C are included also in this table under separate columns.

The types and exposure of the maximum and of the minimum thermometers are as indicated in the notes on table A1.

The monthly mean values of grass minimum temperatures are the arithmetic means over the month of their corresponding daily values. The grass minimum temperatures are measured by ordinary minimum(alcohol)thermometers suitably exposed in the open air at the station field on special stands with their bulbs at a height of 5 centimeters above ground just touching the grass tops if there is any. Grass minimum thermometres readings are taken daily as a routine base at 0600 U.T. Deviations from normals appear besides mean values in a separate column.

TABLE A3.—**Sky Cover & Rainfall**

The monthly mean values of the total sky cover at the principal hours (00,06,12 & 18 UT) are computed from their corresponding daily routine values observed during the month. Mean values of the daily total sky cover is the arithmetic means over the month of the daily hourly values or of the daily observations taken at the 8 synoptic hours (00, 03, 06, 09, 12, 15, 18 & 21 U.T). Sky cover is in octas.

The monthly total rainfall is the total rainfall during the month. The maximum daily rainfall and the number of days with rain<0.1 and more than or equal 0.1, 1, 5, 10, 25 & 50 mms are extracted from the routine daily rainfall totals during the month. The rainfall for a given day is the amount of rain which has fallen during the 24 hours commencing at 0600 U.T of that day; when the amount of rain which has fallen is not large enough to be measured (less than 0.1 mm) the term "Trace" is entered as (Tr.). The amount of rainfall measured includes the water equivalent of the rain water which has frozen after falling and the water equivalent of solid precipitation if any such as hail. Dates of maximum rain in 24 hours are included for actual occurrences up to three ; when exceeding three, the symbol* is added besides the last three dates.

The amount of rainfall is normally measured by ordinary rain gauges. Some selected stations are also equipped with a recording type of rain gauge. The rim of both types of gauges are at a height of 90-100 centimetres above the ground.

TABLE A4.—**Number of Days of Occurrence of Miscellaneous Weather Phenomena**

This table gives the number of days of occurrence of rain, snow, ice pellets, hail, frost, thunderstorm, mist, fog, haze, thick haze, dust or sandrising, dust or sandstorm, gale, clear sky & cloudy sky. Except for rain (see notes on table A3) the days of occurrence of these weather phenomena are those days during which the phenomenon has occurred at any time between 2200, and 2200 U.T.

In compiling this table, the terminology and definitions of these different weather phenomena are as follows.

—A day of rain is the day during which the total amount of rainfall is 0.1 millimetre or more

—A day of snow is the day during which snow or snow flakes or snow showers is or are observed even if it is or (they are) so small in quantity as to yield no measurable amounts of precipitation in the rain-gauge.

—A day of ice pellets is the day during which ice pellets are observed even if they are so small in quantity as to yield no measurable amounts of precipitation in the rain-gauge.

—A day of hail is the day during which either one or more of the following types of precipitation is or are observed, even if they are so small in quantity as to yield no measurable precipitation in the rain-gauge :

- Soft hail
- Small hail
- Hail stone

—A day of frost is the day during which frost is observed at the station.

—A day of thunderstorm is the day during which thunder is heard at the station whether lightning is seen or not. A day on which lightning is seen but thunder is not heard at the station is not counted as a day of thunderstorm.

—A day of mist is the day during which the surface horizontal visibility at the station has deteriorated and became equal to or greater than 1000 metres due to mist.

—A day of fog is the day during which the surface horizontal visibility at the station has deteriorated and fell below 1000 metres due to fog.

—A day of haze is the day during which the horizontal visibility at the station has deteriorated and became equal to or greater than 1000 metres due to haze.

—A day of thick haze is the day during which the horizontal visibility at the station has deteriorated and fell below 1000 metres due to thick haze.

—A day of dust or sandrising is the day during which the horizontal visibility at the station has deteriorated and became equal to or greater than 1000 metres due to dust or sandrising.

—A day of dust or sandstorm is the day during which the horizontal visibility at the station has deteriorated and fell below 1000 metres due to dust or sandstorm.

—A day of gale is the day during which the mean surface wind speed reached or exceeded 34 knots at the station for at least 10 minutes.

—A day of clear sky is the day on which the mean cloud amount at the station is less than 2/8.

—A day of cloudy sky is the day on which the mean cloud amount at the station is 6/8 or more

As regards the last two items above, the mean cloud amount for a day is the mean of the 24 hours, the 8 synoptic hours or the 4 main synoptic hours of cloud observations according to the number of the routine observations taken at the station.

TABLE A5.—Number in Hours of Occurrences of Concurrent Surface Wind Speed and Direction Recorded Within Specified Ranges.

The elements used in preparing this table are the mean hourly values of the surface wind speed and the corresponding mean hourly values of direction taken from the daily records of the surface wind instruments intsalled at the stations. These mean hourly values are extracted for every hour of each day of the month and they refer to a period of 60 minutes centred at the hour.

The number in hours of occurrences of the surface wind falling within the ranges of speed and direction indicated in the table is the number of cases when the mean hourly values of the surface wind as defined have satisfied these ranges.

The number in hours of "variable" winds is the number of cases where the surface wind showed no definite direction over the period of the 60 minutes centred at the hour or when the wind vane was sticking over that period due to the lightness of the wind and not responding to the variation in wind direction ; in such cases the mean wind speed over this period is normally less than 5 knots. The number in hours of "calm" winds is the number of cases where the surface wind has a mean speed of less than one knot over that period, whatever the mean wind direction over the same period is. The number in hours during which the recording instrument failed to record over the whole month is given under a separate column.

The instruments used for recording the surface wind are of the Dines Pressure Tube Anemograph.

This table follows the general lines of Model B of chapter 12 part IV of the WMO Technical Regulations 1959. The ranges of wind speed are (1-10),(11-27), (28-47) knots and 48 knots or more; the ranges for wind direction are twelve ranges of 30° each, beginning with the range (345°-014°) as being the true north.

This table gives the following data :

—The total number in hours of simultaneous occurrences of surface wind satisfying the specified ranges of speed and direction during the month,

—The total number in hours of occurrences of surface wind satisfying the specified ranges of speed during the month irrespective of their direction,

—The total number in hours of occurrences of surface wind blowing from the specified ranges of direction during the month irrespective of their speed.

UPPER AIR DATA

TABLE B1.—Monthly Means and Monthly Absolute Higher & Lower Values of Altit ude air Temperature & Dew point at Standard and Selected Pressure Surface

The routine upper air observations are taken at 0000 and 1200 UT, a separate table of this type is prepared for each hour. The number of cases the height of each of the pressure surfaces indicated in the table has been attained during the month, and the number of cases the temperatures and the dew points have been observed at each of these surfaces are given in the table against each element under column (N).

The monthly mean values of the altitude, temperature and dew piont at each of these pressure surfaces are the arithmetical means of the corresponding daily values over the number of cases (N) indicated against each element. Whenever it is not posible to obtain a complete set of daily values, a useful monthly mean value may be obtained as the mean of available values, taking in consideration: (a) number of missing observations not more than 10, and (b) there is no continuous period of 5 days wtihout an assigned value.

The instruments used are of the radiosonde modulating frequency recording type ; the types of transmitters used do not need to apply any corrections for radiation.

This table follows the general lines recommended by the Commission for Climatology of the World Meteorological Organization Rec. 34 (CCL-1) ; it gives the following data for the hour of observation indicated at the top of the table ;

—The number of cases the height of each of the pressure surfaces has been attained during the month and the number of cases the temperature and dew point at these surfaces have been observed.

—The monthly mean values of the atmospheric pressure corrected to the ground level of the station (H) ; the highest and lowest values of this pressure observed during the month,

—The monthly mean values of the air temperature and of the dew point at the surface ; the highest and lowest values of the surface air temperature observed during the month.

—The monthly mean, the highest and the lowest values of the altitude for each of the pressure surfaces,

—The monthly mean, the highest and the lowest values of air temperature ; and the mean dew point at each of the pressure surfaces.

TABLE B2.—Mean and Extreme Values of the Freezing Level and the Tropopause ; The Highest Wind Speed in the Upper Air

The routine upper air observations are taken at 0000 and 1200 U.T. The number of cases the altitude of the freezing level and of the first tropopause have been attained during the month and the number of cases the pressures and the dew points or temperatures have been observed at these levels are given in the table against each element in the (N) box.

The monthly mean values of the altitudes of the freezing level and of the first tropopause and the monthly mean values of the pressures and of the dew points or temperatures at each of these levels are the arithmetical means of the corresponding daily values over the number of cases (N) indicated in the box of each element.

The first tropopause is determined in accordance with the definition adopted by the Executive Committee of the World Meteorological Organization Resolution 21 (Ec - IX).

This table is based on wind observations taken by the SCR—658 or the Metox radiotheodolites working simultaneously with the radiosonde observations. The types of radiosonde instruments used are given in the notes on table B1.

This table gives the following data for each hour of observation :

—The number of cases the freezing level has been attained during the month and the number of cases the pressure and dew point have been observed at this level.

—The number of cases the altitude of the first tropopause has been attained during the month and the number of cases the pressure and the temperature have been observed at this level.

—The monthly mean values of the altitude, pressure and dew point of the freezing level.

The altitudes, pressures and dew points of the highest and lowest freezing level observed during the month.

—The monthly mean values of the altitudes, pressures and temperatures of the first tropopause.

—The altitudes, pressures and temperatures of the highest and lowest first tropopause observed, during the month.

—The direction and speed of the highest wind speed observed during the month, the altitude and the pressure at which this wind has been observed.

TABLE B3.—**Number of Occurrences of Wind Direction Within Specified Ranges and the Mean Scalar Wind Speed at the Standard and Selected Pressure Surfaces**

The routine upper air observations are taken at 0000 and 1200 U.T. A separate table of this type is used for each station.

The mean scalar wind speed "ffm" of winds blowing from each range of directions at a given pressure surface, is the arithmetical mean of the corresponding daily values of wind speed for the numbe of cases "N" during the month.

The term "Calm" is used in this table to denote wind speed of less than one knot.

This table is based on the wind observations taken at the station as indicated in the notes on table B2.

This table, as in the case of table B1, follows the general lines recommended by the Commission for Climatology of the World Meteorological Organization REC. 34 (CCL-1) the ranges of wind direction used are twelve ranges of 30° each beginning with the range (345°—014°) as being the true north. It gives the following data for the hour of observation indicated :

—The number of cases (N) the wind has been observed from the specified ranges of direction at the surface of the station and at the different pressure surfaces during the month.

—The mean scalar wind speeds (ffm) blowing from the specified ranges of direction at the surface of the station and at the different pressure surfaces,

—The number of cases of "calm" winds at the surface of the station and at the different pressure surfaces.

—The total number of cases (TN) the wind has been observed at the surface of the station and at the different pressure surfaces during the month irrespective of the wind direction.

—The mean scalar wind speeds at the surface of the station and at the different pressure surfaces blowing from all directions.

AGRO—METEOROLOGICAL DATA

Reviews of Agrometeorological Stations at Mersa Matruh, Tahrir, Bahtim & Kharga.

The monthly review of all agrometeorological elements that have been observed at each agrometeorological station includes a general summary of pronounced weather phenomena that prevailed during the month together with a comparison between the monthly values of this year and last year of specified elements that are of great interest to agriculturists as well as to agrometeorologists. For some elements, when observations are of a long time, departure from normal values appears also in the monthly review.

During winter, the monthly review includes normally the days of minimum air temperature below 0°C at the height of five centimetres above the ground.

TABLE C1.—Air Temperature at 1½ Metres Above Ground

The monthly mean values of the maximum, minimum, night-time mean, day-time mean and mean of day of air temperatures are the arithmetic means over the month of their corresponding daily values. The mean air temperature of a day is the mean of the eight values of the dry bulb temperature occuring at each of the principal and secondary observation hours, the value at 0000, 0300, & 2100 U.T. being extracted from the record of the dry bulb thermometer of a mercury in steel hygrograph, except at Mersa Matruh and Kharga where they are obtained from visual readings.

The night-time mean temperature of a day is the mean temperature for the period from sunset of the previous day to sunrise of the same day. The day-time mean temperature refers to the period from sunrise to sunset of the same day. Both night-time and day-time mean temperatures are computed from empirical formulae, which may vary from month to month but are common for all centres. These formulae were found by trial comparison with true means of the year 1966. The errors were never permitted to reach a whole degree, and usually stayed equal to or lower than 0.5°C.

The duration of air temperatures above a specified limit of temperature is obtained graphically from the same recording charts, daily to the nearest whole hour.

The maximum (mercury), the minimum (alcohol) and the dry bulb (mercury ventilated) thermometers are freely exposed in louvred Stevenson screens of the Egyptian type with their bulbs at a height of 190-195 centimetres above ground for the maximum and minimum thermometers, and 170 cms approximately for the dry bulb thermometer ; the recording thermometer used is of the bi-metallic type and is exposed in a similar screen ; the height of the bi-metallic piece is 165 centimetres approximately above the ground.

TABLE C2.—Extreme Values of Maximum & Minimum Air Temperatures at 1½ metres above Ground, Absolute Minimum Air Temperature at 5 cms above Ground over Different Fields.

The extreme values of maximum and minimum air temperatures at 1½ metres above ground and of minimum air temperatures at 5 cms above ground over different fields are extracted from their routine values. Dates of occurrences are included in separate columns beside the extreme value. Extreme values of maximum & minimum air temperature at 1½ metres inculde the Highest & Lowest limits of the daily corresponding routine values during the month.

The thermometres used for minimum air temperature at 5 cms above ground are of the ordinary minimum type (alcohol) with the bulbs screened with small separate screens of horizontal 5 cm. length and 2 cm. diameter metal tubing painted whité outside and black inside, and centered on the thermometer bulbs.

TABLE C3.—**(Solar + Sky) Radiation, Duration of Bright Sunshine, Relative Humidity. Vapour Pressure at 1½ meters above Ground, Evaporation & Rainfall.**

The monthly total values of the (solar+sky) Radiation, Bright Sunshine duration, Evaporation & Rainfall are the sums of their corresponding daily values for the month. The monthly mean values of the (Solar+Sky) Radiation, Relative Humidity & Vapour pressure at 1½ metres and Evaporation are the arithmetic means of their corresponding daily values for the month respectively.

The (Solar + Sky) Radiation is obtained from the records of a Robitzsch Actinograph ; the Robitzch values at Bahtim, Tahrir and Kharga are regularly compared with the records of an Eppley pyrheliometer installed at the station. The sensitive elements of the Robitzsch Actiongraph and of the Eppley phyrheliometer are at 100 cms approximately above the ground.

The types of insturments used for the measurement of the duration of bright sunshine, their exposure and the evaluation of the durations are as given in the notes on table A1.

The relative humidity and vapour pressure values for Tahrir, Bahtim and Kharga are derived from the readings of ventilated dry and wet bulb mercury thermometers freely exposed in the screen using the Aspirations psychrometer Tafeln of the Deutschen Wetterdients 1955. The relative humidity and vapour pressure values for Mersa Matruh are drived from the readings of unventitlated dry and wet bulb mercury thermometers freely exposed in the screen, using the Jelineks Psychrometer Tables (Leipzig 1911). No corrections are applied for the wind speeds or the atmospheric pressure. The height of the bulbs is 170 cms approximately above the ground.

The mean relative humidity or vapour pressure for a given day is the mean of the eight principal and secondary observation values which are extracted from the readings of the dry and wet bulb thermometers, the values at 0000, 0300, and 2100 U.T. being extracted from the records of the mercury in steel hygrograph except at Mersa Matruh and Kharga where these values are obtained from visual readings of the dry and wet bulb thermometers.

The mean monthly values of the relative humidity or vapour pressure are the means of the corresponding mean daily values during the month. The lowest value of the relative humidity and its date of occurrence are obtained from the records of a hair hygrograph exposed in the screen, the height of the hair is 170 centimetres approximately above the ground.

The extreme maximum and minimum values of vapour pressure during the month are extracted from the values of the eight prinicipal and secondary observations.

Evaporation measurements are taken once daily at 0600 U.T. from a Piche tube and also a class "A" evaporation pan and give the evaporation for the previous 24 hours. The Piche tube is installed in the screen with the dry bulb, maximum and minimum thermometers ; the colour and effective area of the evaporation disc are as given in the notes on table A1. The class "A" evaporation pan is of the type recommended by the Commisision of Instruments and Methods of Observation of the World Meteorological Organization Rec 42 (CIMO-56); it is of a cylindrical shape, 25.4 centimetres deep, 120.6 centimetres in diameter (inside dimentions). The pan except at Bahtim is freely exposed in the open air in the dry field, its rim at a height of 41 centimetres above ground away from obstacles such as buildings or trees. At Bahtim the pan is protected from animals and birds by a cylindrical cover of the same diameter as the pan and 30 cm high made of metal wire mesh of one cm, side. Reduction of evaporation by 11%—established by systematic study-is being allowed for in the data published.

The types of instruments used for measuring the amount of rainfall, their exposure and the evaluation of these amounts are given in the notes on table A3,

TABLE C4.—**Extreme Soil Temperature at Different Depths (cms) in different Fields**

The highest and lowest values of soil temperatures at the selected depths in different fields are extracted from their corresponding daily routine values.

The soil temperature readings are taken in different fields at the specified depths ranging from 2 cms to 300 cms in each field as indicated in the table. These readings are taken regularly during the period from 0600 to 1800 U.T. according to the following schedule, except at Kharga where the observations are as appropriate but extend in the period between 1800 and 0600 U.T.

— at 0600 U.T. and every three hours for the 2,5 and 10 cm depths.

— at 0600 U.T. and every six hours for the 20 and 50 cms depths.

— at 1200 U.T. for the 100 and 200 cms. depths.

— at 0900 U.T. once every 3 days for the 300 cms depth.

The thermometers used are of the Fuess or the Friedrich types.

TABLE C5.—**Surface Wind**

The monthly values of the daily mean, the night time mean and of the day time mean of the surface wind speed is the arithmetic mean of their corresponding daily evaluated values for the month respectively. The mean wind speed of the day is computed for the period of 24 hours from 1800 U.T. of the previous day ; the night-time mean wind speed of the day is obtained from the total run of air during the period 1800 U.T. of the previous day to 0600 U.T. of that day ; the day-time mean is similarly computed for the period 0600 to 1800 U.T. of the same day. The type of the wind instrument used is of the run counter of the Lambrecht type ; the cups of which are at $1\frac{1}{2}$ metres above the ground.

The number of days with surface wind speed reaching or exceeding specified values of velocities ($\geq$10 Knots, $\geq$15 Knots, $\geq$20 Knots, $\geq$25 Knots, $\geq$30 Knots, $\geq$35 Knots and $\geq$40 Knots) for at least 5 minutes at any time between 2200 & 2200 U.T. irrespective of its direction are extracted from the daily routine analysis of surface wind records during the whole month. The daily records of the Dine Pressure Tube Anemograph are used, the highest gust refer to the highest excursion made by the velocity pen on the records during the month. The head of the instrument is at a height of 10 metres above the ground level.

LIST OF STATIONS APPEARING IN THE REPORT — SYNOPTIC AND CLIMATOLOGICAL STATIONS

District	Station	Index Number II iii	Latitude °N	Longitude °E	Elevation of the ground H or H' (metres)	Altitude of the Station Hp (metres)	Altitude of the barometric Cistern (metres)	Height of Wind recording instrument (metres) above building	Height of Wind recording instrument (metres) above ground	Synoptic Observations 00	03	06	09	12	15	18	21	Hourly Observations (H) Half hourly obs. (h) (0000—2400)	Upper air observations P (Pilot Ballon) W (Radio Wind) R (Radio Sonde) 00	06	12	18	Remarks
Mediterranean	Sallum	62 300	31 33	25 11	4.0	6.0	5.2	10.0	14.0	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Mersa Matruh (A)	306	31 20	27 13	30.7	30.0	30.0	10.0	17.5	×	×	×	×	×	×	×	×	H	RW	W	RW	W	
	Alexandria (A)	318	31 12	29 57	—3.35	6.78	6.45	10·0	22.08	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Port Said (A)	333	31 17	32 14	1.1	6.1	2.7	—	—	×	×	×	×	×	×	×	×	H	P	—	P	—	
	El Arish	336	31 07	33 45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Ghazza	338	31 30	34 27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Lower Egypt	Tanta	348	30 47	31 00	7.31	14.85	12.51	10.0	12.0	×	×	×	×	×	×	×	×	H	—	—	—	—	
Cairo Area	Cairo (A)	366	30 08	31 24	111.54	74.5	64.72	—	10.0	×	×	×	×	×	×	×	×	h	—	—	—	—	
	Helwan	378	29 52	31 20	139.26	140.68	140.68	—	10.0	×	×	×	×	×	×	×	×	—	RW	W	RW	W	
Upper Egypt	Fayoum	381	29 18	30 51	23.43	—	—	10.0	13.8	—	—	×	×	×	×	×	—	H	—	—	—	—	
	Minya (A)	387	28 05	30 44	39.0	40.5	44.2	10.0	20.15	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Assyout (A)	393	27 11	31 06	71.08	69.6	69.6	15.0	20.0	×	×	×	×	×	×	×	×	H	—	—	—	—	
	Luxor (A)	405	25 40	32 42	95.0	88.45	88.45	10.0	21.0	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Aswan (A)	414	23 58	32 47	200.0	193.5	198.96	10.0	15.0	×	×	×	×	×	×	×	×	H	RW	W	RW	W	
Western Desert	Siwa	417	29 12	25 29	—15.0	—13.26	—13.26	10.0	14.6	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Bahariya	420	28 20	28 54	128.0	129.5	129.5	—	—	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Farafra	423	27 03	27 58	90.0	92.1	92.1	—	—	—	—	×	×	×	×	×	—	H	—	—	P	—	
	Dakhla	432	25 29	29 00	106.21	111.27	107.75	10.0	14.7	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Kharga	435	25 27	30 32	77.79	72.75	78.68	10.2	14.2	×	×	×	×	×	×	×	×	H	P	—	P	—	
Red Sea	Tor	495	28 14	33 37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Hurghada	462	27 17	33 46	1.0	2.75	2.75	10.0	15.0	×	×	×	×	×	×	×	×	H	—	—	P	—	
	Quseir	465	26 08	34 18	8.7	10.83	10.0	10.0	14.4	×	×	×	×	×	×	×	×	H	—	—	—	—	

GENERAL SUMMARY OF WEATHER CONDITIONS

JANUARY 1973

Normal winter interved with two cold waves, the second was excessive.

PRESSURE DISTRIBUTION

Four Mediterranean depresions or their troughs passed through the East Mediterranean on the 14th, 21st, 27th and 31st. Otherwise, high pressure established over the East Mediterranean and NE Africa areas.

The mean atmospheric pressure was slightly above normal in general.

SURFACE WIND

Surface winds were generally light to moderate and mostly W ly & NW ly in north of the country and N ly & NW ly in the south. Directions veered to NE ly in several days.

Fresh to strong winds occurred during few days in scattered localities mainly in the Mediterranean and Red Sea districts.

Gales were reported at Sidi Barrani on the 14th & 15th, at Mersa Matruh on the 14th, at Cairo on the 14th, at Hurghada on the 15th. and at Quseir on the 14th.

TEMPERATURE

This month was intervened by two cold waves during the periods (1st—4th) and (12th—18th), the second was excessive. Maximum air temperatures during these waves departed moderately below normal, but were otherwise moderately above normal.

The highest and lowest maximum air temperatures reported were 31.0°C at both Kom Ombo and Aswan on the 9th & 20°C at Ras El- Hikma on the 25th respectively.

Minimum air temperatures were moderately below normal in general.

The highest and lowest minimum air temperatures reported were 16.4°C at Quseir on the 25th & -3.4°C at Dakhla on the 18th respectively.

PRECIPITATION

Light to moderate rain fell in the north mainly during the period (11th—16th). Rain extended southwards till Minya on the 14th.

Heavy rain occurred in few days mainly on the 13th when the daily rainfall was 28.5 mm at Alexandria and 44.5 mm at Rosetta, and also on the 14th when it was 24.2 mm at Damietta and 24.1 mm at Damanhour.

The monthly rainfall showed irregular departures from normal.

The maximum daily rainfall was 44.5 mm, reported at Rosetta on the 13th.

The maximum monthly rainfall was 93.4 mm reported also at Rosetta.

OTHER WEATHER PHENOMENA

Early morning mist developed during several days over scattered places in Delta, Cairo area and Middle Egypt.

Rising sand was reported in some days mainly in Upper Egypt and the Western Desert districts.

Chairman (M. F. TAHA)

Cairo, March 1975

Board of Directors

SURFACE DATA

Table A 1. — MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION.

JANUARY — 1973

STATION	Atmospheric Pressure (mbs) M.S.L		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms. Mean
			Maximum		Minimum		Dry Bulb			Wet Bulb						
	Mean	D.F Normal or Average	(A) Mean	D.F Normal or Average	(B) Mean	D.F Normal or Average	$\frac{A+B}{2}$	Mean	D.F Normal or Average	Mean	D.F Normal or Average	Mean	D.F Normal or Average	Total Actual	Total Possible	%	
Sallum	1019.6	+ 2.4	19.2	+ 0.4	10.4	+ 1.0	14.8	14.3	+ 0.7	10.3	+ 0.3	58	0	—	—	—	5.2
Mersa Matruh (A)	1019.7	+ 2.4	17.8	— 0.3	8.8	+ 0.5	13.3	13.2	+ 0.4	10.2	+ 0.5	66	+ 1	(215.1)	(300.6)	72	4.9
Alexandria (A)	1019.8	+ 2.1	18.5	0.0	7.2	— 1.9	12.9	12.7	— 0.9	10.1	— 0.8	70	0	224.8	322.2	70	3.4
Port Said (A)	1018.3	+ 1.0	18.0	— 0.1	9.2	— 2.1	13.6	12.9	— 1.4	9.9	— 1.9	66	— 6	236.1	322.2	73	3.9
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1019.7	+ 2.2	19.4	— 0.2	4.8	— 1.5	12.1	11.5	— 1.0	8.6	— 1.2	65	— 3	251.7	323.0	78	2.7
Cairo (A)	1019.6	+ 1.7	19.1	0.0	7.9	— 0.9	13.5	13.3	— 0.4	8.9	— 1.0	51	— 7	—	—	—	7.9
Fayoum	—	—	20.9	+ 0.8	4.0	— 2.2	12.5	11.8	— 1.0	8.5	— 0.9	62	+ 2	—	—	—	3.4
Minya (A)	1019.8	+ 1.3	20.7	+ 0.1	2.8	— 1.1	11.8	11.4	— 0.4	7.7	— 0.4	56	— 1	269.4	328.7	82	5.0
Assyout (A)	1018.7	+ 0.3	20.8	+ 0.1	5.6	— 1.6	12.9	12.5	— 0.9	8.0	— 0.4	49	+ 2	—	—	—	6.4
Luxor (A)	1018.4	+ 1.2	24.1	+ 1.1	4.9	— 0.5	14.5	14.0	— 0.1	9.1	— 0.3	47	— 4	—	—	—	4.6
Aswan (A)	1018.2	+ 1.1	24.4	+ 0.6	7.9	— 0.1	16.2	15.7	+ 0.1	8.6	— 0.3	31	— 3	—	—	—	8.8
Siwa	1019.8	+ 1.4	19.4	— 0.3	3.5	— 1.2	11.5	10.9	— 1.0	7.0	— 0.9	53	+ 1	270.2	326.5	83	6.7
Bahariya	1020.5	+ 1.9	20.3	+ 0.3	4.4	— 0.5	12.4	11.9	— 0.7	7.2	— 0.6	46	— 1	—	—	—	4.8
Farafra	1021.4	+ 1.1	20.4	— 0.2	3.7	— 0.4	12.1	12.0	— 0.3	6.7	+ 0.1	40	— 3	—	—	—	6.4
Dakhla	1020.5	+ 2.0	22.4	+ 1.1	2.4	— 1.7	12.4	11.6	— 0.4	6.2	— 1.0	38	— 1	—	—	—	6.9
Kharga	1019.3	+ 1.4	22.8	+ 0.5	5.9	+ 0.1	14.4	14.3	+ 0.4	7.7	— 0.3	32	—11	308.4	334.6	92	6.9
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1018.4	+ 1.8	21.8	+ 0.9	9.2	— 0.4	15.5	15.3	— 0.5	10.4	— 0.5	50	— 1	299.4	331.1	90	8.5
Quseir	1018.1	+ 1.4	21.8	— 0.7	13.4	— 0.4	17.6	17.6	— 0.5	12.5	— 0 1	52	+ 4	—	—	—	7.2

Note : Total sunshine duraton for 29 days only at Mersa Matruh.

Table A 2.— MAXIMUM AND MINIMUM AIR TEMPERATURES

JANUARY — 1973

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					≥25	≥30	≥35	≥40	≥45							<10	<5	<0	<-5
Sallum	21.5	25	13.0	11	0	0	0	0	0	9.5	—	13.7	2	6.4	16	10	0	0	0
Mersa Matruh (A)	21.4	25	12.6	14	0	0	0	0	0	6.7	—	12.2	1	5.0	14	22	0	0	0
Alexandria (A)	22.0	7	12.8	14	0	0	0	0	0	6.0	—	11.5	22	3.4	3	26	3	0	0
Port Said (A)	21.1	19	11.1	16	0	0	0	0	0	8.7	—	13.0	1	4.2	15	20	2	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	23.7	25	12.2	16	0	0	0	0	0	—	—	8.7	31	0.2	4	31	15	0	0
Cairo (A)	23.2	24	12.0	15	0	0	0	0	0	—	—	12.5	30	3.1	3,4	24	4	0	0
Fayoum	25.2	20-25	14.3	15	1	0	0	0	0	0.1	—	10.1	11	-1.5	4	30	23	3	0
Minya (A)	25.3	20	14.9	15	2	0	0	0	0	1.2	—	7.4	11	—2.6	3	31	26	5	0
Assyout (A)	26.0	20	13.2	15	4	0	0	0	0	1.8	—	9.2	26	—2.0	2	31	16	1	0
Luxor (A)	30.0	25	14.8	15	12	0	0	0	0	0.0	—	8.2	13	0.0	18	31	17	0	0
Aswan (A)	31.0	9	15.0	15	14	1	0	0	0	—	—	12.0	27	2.5	16	25	2	0	0
Siwa	25.0	20	13.4	16	0	0	0	0	0	3.0	—	10.4	2	-2.2	17-18	31	22	3	0
Bahariya	26.0	20	14.0	15	2	0	0	0	0	3.7	—	8.7	21	-1.5	3	31	16	4	0
Farafra	26.5	20	14.4	15	3	0	0	0	0	4.0	—	10.2	21	-2.2	16	30	22	5	0
Dakhla	28.2	7	13.2	15	8	0	0	0	0	2.2	—	7.1	21	-3.4	15	31	23	6	0
Kharga	28.6	8	15.0	15	9	0	0	0	0	3.8	—	10.8	23	0.0	15	29	10	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	25.1	21	14.5	15	1	0	0	0	0	—	—	12.6	27	6.4	3	21	0	0	0
Quseir	26.0	12	14.8	15	1	0	0	0	0	12.0	—	16.1	25	7.8	16	2	0	0	0

Table A 3.—SKY COVER AND RAINFALL

JANUARY — 1973

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	4.6	4.2	4.1	3.8	4.2	11.5	— 7.5	7.6	12	0	5	3	1	0	0	0
Mersa Matruh . . . . . (A)	2.4	3.8	4.5	3.0	3.2	17.7	— 14.0	11.7	14	0	6	3	1	1	0	0
Alexandria . . . . . (A)	4.1	4.0	4.7	3.4	4.0	70.2	+17.6	28.5	13	1	10	8	4	2	1	0
Port Said . . . . . (A)	1.8	1.9	2.1	2.0	2.0	17.5	+ 5.1	10.1	14	1	4	4	1	1	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1.0	2.0	3.5	0.8	1.9	10.5	— 0.2	8.0	14	0	5	2	1	0	0	0
Cairo . . . . . (A)	1.1	2.5	3.4	1.8	2.1	5.4	+ 0.2	5.4	14	0	1	1	1	0	0	0
Fayoum	—	2.7	2.1	1.4	—	Tr.	— 0.9	Tr.	12	1	0	0	0	0	0	0
Minya . . . . . (A)	0.9	2.4	2.1	1.6	1.7	2.0	+ 1.7	2.0	14	0	1	1	0	0	0	0
Assyout . . . . . (A)	0.5	1.2	1.8	0.9	1.0	Tr.	0.0	Tr.	12	1	0	0	0	0	0	0
Luxor . . . . . (A)	0.6	1.5	1.9	1.4	1.3	Tr.	— 0.1	Tr	14,15	2	0	0	0	0	0	0
Aswan . . . . . (A)	0.3	0.9	1.4	0.8	1.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	2.9	2.5	2.8	2.4	2.6	0.0	— 1.0	0.0	—	0	0	0	0	0	0	0
Bahariya	1.1	2.1	2.2	1.2	1.5	2.0	+ 1.8	2.0	13	1	1	1	0	0	0	0
Farafra	—	2.3	1.5	0.7	—	Tr.	— 0.6	Tr.	14	1	0	0	0	0	0	0
Dakhla	0.3	1.2	0.9	0.3	0.7	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Kharga	0.3	0.9	1.6	0.5	0.9	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.5	1.3	2.1	1.2	1.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Quseir	0.4	2.0	2.3	1.3	1.5	Tr.	0.0	Tr.	14	1	0	0	0	0	0	0

Table A 4.—DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

JANUARY — 1973

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandstorm Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice Pellets	Hail											
Sallum	5	0	0	0	0	0	0	0	0	0	2	0	0	1	2
Mersa Matruh (A)	6	0	0	0	0	0	1	0	0	0	5	1	1	10	4
Alexandria (A)	10	0	0	0	0	2	2	6	0	0	0	0	0	5	4
Port Said (A)	4	0	0	0	0	0	0	0	0	0	0	0	0	22	3
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	5	0	0	0	0	0	9	0	0	0	1	0	0	20	1
Cairo (A)	1	0	0	0	0	0	5	1	12	3	1	1	1	16	0
Fayoum	0	0	0	0	0	0	0	0	1	0	1	0	0	—	—
Minya (A)	1	0	0	0	0	0	16	2	5	0	5	0	0	21	6
Assyout (A)	0	0	0	0	0	0	0	0	0	0	1	0	0	24	0
Luxor (A)	0	0	0	0	0	0	0	0	20	0	0	1	0	22	1
Aswan (A)	0	0	0	0	0	0	0	0	5	0	0	1	0	23	0
Siwa	0	0	0	0	0	0	0	0	0	0	8	0	0	13	2
Bahariya	1	0	0	0	0	0	0	0	0	0	1	0	0	22	0
Farafra	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	5	0	0	28	0
Kharga	0	0	0	0	0	0	0	0	0	0	3	0	0	25	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	1	5	0	1	22	0
Quseir	0	0	0	0	0	0	0	0	0	0	1	0	0	21	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

JANUARY — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	34	0	0	1—10	16	26	25	30	35	56	20	15	22	69	104	71	489
				11—27	6	0	0	2	14	3	0	5	16	84	68	23	221
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**22**	**26**	**25**	**32**	**49**	**59**	**20**	**20**	**38**	**153**	**172**	**94**	**710**
Mersa Matruh (A)	40	0	0	1—10	8	18	6	33	25	33	36	48	73	34	10	22	349
				11—27	8	3	17	25	25	13	16	31	77	63	24	32	334
				28—47	0	0	0	0	0	0	0	1	0	3	0	17	21
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**16**	**21**	**23**	**61**	**50**	**46**	**52**	**80**	**150**	**100**	**34**	**71**	**704**
Alexandrieа (A)	8	0	0	1—10	65	54	89	54	36	29	26	64	39	22	29	38	545
				11—27	5	10	5	9	0	0	1	14	48	23	17	28	190
				28—47	0	0	0	0	0	0	0	0	0	0	0	1	1
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**70**	**64**	**94**	**63**	**36**	**29**	**27**	**78**	**87**	**45**	**46**	**97**	**736**
Tanta	125	4	1	1—10	41	44	42	23	17	10	20	10	37	59	64	30	397
				11—27	2	1	31	16	7	6	9	7	55	44	21	18	217
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**43**	**45**	**73**	**39**	**24**	**16**	**29**	**17**	**92**	**103**	**85**	**48**	**614**
Cairo (A)	147	0	0	1—10	19	43	35	36	28	23	29	47	40	45	17	19	404
				11—27	0	39	11	9	3	20	14	36	28	29	0	0	189
				28—47	0	0	0	0	0	0	0	0	4	0	0	0	4
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**19**	**82**	**46**	**65**	**31**	**46**	**43**	**83**	**72**	**74**	**17**	**19**	**597**
Fayoum	17	17	0	1—10	111	121	9	11	14	29	63	85	99	58	43	26	669
				11—27	0	18	0	0	0	0	0	1	12	9	1	0	41
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**111**	**139**	**9**	**11**	**14**	**29**	**63**	**86**	**111**	**67**	**44**	**26**	**710**
Minya (A)	10	1	0	1—10	213	55	22	4	4	33	71	37	19	36	46	75	615
				11—27	45	22	0	0	0	0	3	3	1	18	17	9	118
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**258**	**77**	**22**	**4**	**4**	**33**	**74**	**40**	**20**	**54**	**63**	**84**	**733**
Assyout (A)	172	0	0	1—10	23	14	8	23	31	16	21	7	17	122	133	84	499
				11—27	11	0	0	0	0	0	0	1	4	16	20	21	73
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**34**	**14**	**8**	**23**	**31**	**16**	**21**	**8**	**21**	**138**	**153**	**105**	**572**

Table A 5 (*cont'd.*)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

JANUARY . . 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 – 011	015 – 044	045 – 074	075 – 104	105 – 134	135 – 164	165 – 194	195 – 224	225 – 254	255 – 284	285 – 314	315 – 344	
Luxor . . . . . (A)	37	0	0	1–10	80	68	61	60	30	9	66	48	26	74	54	72	578
				11–27	0	4	8	0	0	0	0	0	0	2	8	7	29
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**80**	**102**	**69**	**60**	**30**	**9**	**66**	**48**	**26**	**76**	**62**	**79**	**707**
Aswan . . . . . (A)	18	0	0	1–10	273	128	9	4	8	7	4	2	3	12	15	89	554
				11–27	66	36	13	0	0	0	0	0	0	1	17	39	172
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**339**	**164**	**22**	**4**	**8**	**7**	**4**	**2**	**3**	**13**	**32**	**128**	**726**
Siwa	98	2	0	1–10	12	7	47	66	88	45	8	22	25	132	86	8	546
				11–27	4	0	0	11	10	5	1	7	0	25	24	11	98
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**16**	**7**	**47**	**77**	**98**	**50**	**9**	**29**	**25**	**157**	**110**	**19**	**644**
Dakhla	23	45	0	1–10	53	35	31	34	22	33	47	38	37	85	108	99	612
				11–27	9	2	1	0	0	0	0	0	1	2	27	22	64
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**62**	**37**	**32**	**34**	**22**	**33**	**47**	**38**	**38**	**87**	**135**	**121**	**676**
Kharga	2	1	0	1–10	218	117	43	20	12	8	16	12	15	29	55	102	647
				11–27	48	19	0	0	0	0	0	0	1	2	13	11	94
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**266**	**136**	**43**	**20**	**12**	**8**	**16**	**12**	**16**	**31**	**68**	**113**	**741**
Hurghada	18	0	0	1–10	28	26	29	15	12	8	4	8	6	26	157	51	370
				11–27	68	3	3	0	0	0	0	0	0	26	141	102	343
				28–47	2	0	0	0	0	0	0	0	0	0	10	1	13
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**98**	**29**	**32**	**15**	**12**	**8**	**4**	**8**	**6**	**52**	**308**	**154**	**726**
Quseir	0	0	0	1–10	26	47	64	32	9	8	6	1	8	14	178	118	510
				11–27	61	82	24	0	0	0	0	0	0	0	6	60	233
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**87**	**129**	**88**	**32**	**9**	**8**	**6**	**1**	**8**	**14**	**184**	**178**	**744**

UPPER AIR CLIMATOLOGICAL DATA

Table B 1—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

JANUARY 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 0000 UT	Surface	27	*1019m.b.	*1029m.b.	*1011m.b.	27	11.1	15.2	8.0	27	6.6
	1000	27	184	270	120	27	12.9	16.0	7.2	27	6.2
	850	27	1530	1613	1477	26	4.5	10.0	— 1.9	25	— 4.4
	700	26	3091	3187	3015	25	— 2.3	4.5	— 9.5	26	—20.6
	600	26	4391	4419	4195	26	— 8.2	— 1.0	— 17.5	26	—30.1
	500	26	5688	5842	5531	26	—17.8	— 10.6	— 27.5	26	—35.5
	400	23	7314	7517	7107	23	— 29.2	— 22.2	— 43.0	23	—45.3
	300	21	9314	9563	9111	21	— 42.4	— 34.9	—48.1	18	—55.8
	250	18	10530	10797	10335	18	— 49.2	—42.4	—55.8	18	—62.3
	200	14	11987	12235	11822	14	—53.3	—44.9	— 60.3	9	—66.1
	150	7	13822	14035	13694	7	—57.8	—53.9	—62.8	4	—68.3
	100	2	16246	16249	16244	2	—61.4	—60.4	— 62.5	—	—
	70	1	18477	—	—	1	— 59.8	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 UT	Surface	31	*10c3m.b.	*1010m.b.	*990m.b.	31	10.4	14.7	4.6	31	1.8
	1000	31	1.3	228	107	25	10.5	13.5	4.9	25	2.3
	850	31	1511	1562	1411	31	5.9	11.7	— 3.6	30	— 7.3
	700	31	3080	3139	2914	31	— 1.4	4.5	—15.4	31	—17.3
	600	31	4295	4398	4098	30	— 8.1	— 1.5	—17.0	30	—22.9
	500	31	5692	5818	5480	31	—15.9	—11.3	—21.7	31	—30.4
	400	31	7338	7491	7105	31	—27.0	—14.1	—32.2	31	—40.2
	300	30	9352	9524	9112	29	—41.1	—31.7	—47.3	29	—51.6
	250	30	10571	10744	10337	30	—48.3	—41.6	—56.0	30	—58.6
	200	26	12012	12200	11804	25	—53.7	—46.9	—60.5	23	—62.8
	150	21	13852	14043	13678	21	—58.9	—49.9	—65.3		—67.5
	100	2	16290	16323	16258	2	—67.3	—61.1	—73.5	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 UT	Surface	30	*99 m.b.	*1001m.b.	*990m.b.	30	11.8	17.7	4.4	30	0.4
	1000	30	160	201	108	4	9.1	10.6	7.1	4	— 2.8
	850	30	1524	1559	1483	30	11.7	18.2	2.8	30	— 4.0
	700	30	3130	3168	3041	30	5.3	11.7	— 3.9	30	—12.4
	600	30	4378	4421	4252	29	— 1.2	3.4	— 5.6	29	—18.0
	500	30	5810	5869	5663	30	— 9.7	— 6.4	—14.1	30	—24.4
	400	30	7496	7579	7344	29	—21.4	—17.3	—24.5	28	—33.2
	300	30	9561	9649	9387	30	—35.2	—30.1	—40.0	29	—45.3
	250	30	10811	10912	10638	30	—43.6	—38.5	—49.5	29	—52.7
	200	28	12281	12391	12123	28	—53.7	—47.1	—59.8	24	—61.9
	150	17	14088	14236	13973	17	—63.3	—56.1	—69.9	3	—68.1
	100	7	16557	16716	16417	7	—70.0	—65.6	— 74.7	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

Table B1 (*contd*). MONTHLY MEANS, ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

JANUARY — 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 U.T.	Surface	30	*1018m.b.	*1028m.b.	*1010m.b.	30	16.1	18.5	10.4	30	5.9
	1000	30	178	262	114	30	14.5	18.0	9.9	30	4.6
	850	30	1524	1603	1453	30	3.9	10.7	— 1.5	30	— 6.4
	700	29	3082	3190	2979	29	— 2.8	2.7	—10.0	29	—18.2
	600	29	4294	4511	4156	29	—10.0	— 3.0	—18.0	29	—26.5
	500	29	5576	5919	5517	29	—18.6	—12.2	—27.5	29	—34.1
	400	29	7305	7570	7112	29	—29.0	—19.0	—38.9	28	—42.2
	300	27	9300	9580	9089	27	—42.8	—37.5	—49.9	25	—56.0
	250	25	10509	10795	10300	25	—49.8	—41.5	—55.7	20	—62.2
	200	19	11960	12226	11744	19	—51.2	—43.8	—60.3	14	—65.6
	150	13	13805	14068	13588	13	—55.8	—51.9	—63.3	9	—68.5
	100	6	16343	16467	16258	6	—63.7	—60.0	—68.9	1	—70.4
	70	4	18499	18540	18448	4	—63.4	—62.9	—63.9	—	—
	60	3	19453	19500	19410	3	—62.8	—61.2	—63.8	—	—
	50	3	20551	20610	20511	3	—61.9	—58.9	—63.8	—	—
	40	1	22040	—	—	1	—56.4	—	—	—	—
	30	1	23817	—	—	1	—53.5	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	31	*1002m.b.	*1010m.b.	*994m.b	31	18.2	22.3	11.5	31	2.7
	1000	31	156	220	90	24	17.5	21.6	11.5	24	2.6
	850	31	1517	1578	1433	31	7.1	13.9	— 2.9	31	— 7.3
	700	31	3095	3172	2965	31	0.2	6.5	— 9.8	31	—17.7
	600	31	4317	4411	4144	31	— 6.2	0.0	—15.7	31	—23.4
	500	31	5722	5838	5512	31	—14.6	— 9.7	—22.5	31	—32.1
	400	30	7371	7516	7122	30	—26.0	—20.3	—32.8	30	—40.8
	300	30	9398	9563	9083	29	—39.4	—31.8	—46.6	28	—52.5
	250	29	10614	10787	10287	29	—46.7	—37.9	—55.1	29	—58.9
	200	27	12084	12240	11747	26	—52.0	—47.3	—56.9	23	—63.5
	150	24	13919	14067	13607	24	—57.4	—52.9	—64.9	17	—67.5
	100	21	16415	16559	16158	21	—65.6	—57.8	—70.3	—	—
	70	18	18598	18711	18358	18	—65.2	—59.8	—72.5	—	—
	60	12	19590	19760	19350	12	—64.8	—61.2	—68.7	—	—
	50	12	20664	20781	20438	12	—64.2	—59.9	—69.9	—	—
	40	1	21900	—	—	1	—59.7	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 1200 U.T.	Surface	30	*995mb.	*1000mb.	*990m.b	30	22.6	28.0	13.6	30	3.6
	1000	3	147	193	104	4	18.2	20.4	15.0	4	3.3
	850	30	1530	1562	1502	30	12.0	17.2	— 0.7	30	— 6.8
	700	30	3140	3166	3063	30	6.3	11.0	— 1.6	30	—14.1
	600	30	4391	4429	4298	30	0.1	3.3	— 5.3	30	—19.5
	500	28	5834	5878	5756	28	— 8.6	— 4.5	—12.6	28	—26.6
	400	28	7528	7599	7429	28	—20.4	—16.3	—25.7	28	—35.9
	300	28	9304	9698	9487	28	—33.9	—30.0	—38.7	28	—47.3
	250	28	10860	10950	10732	28	—42.4	—38.0	—48.0	27	—54.8
	200	27	12333	12419	12191	27	—52.5	—43.7	—56.4	24	—63.4
	150	24	14149	14237	14010	24	—63.4	—55.7	—68.0	4	—69.0
	100	21	16594	16677	16519	21	—72.4	—66.6	—75.2	—	—
	70	14	18696	18767	18630	14	—73.0	—68.1	—79.0	—	—
	60	7	19561	19750	19600	7	—68.8	—65.3	—74.3	—	—
	50	7	20715	20823	20653	7	—62.1	—56.7	—66.5	—	—
	40	3	22167	22320	22000	3	—59.6	—58.8	—60.8	—	—
	30	3	23932	24033	23856	3	—58.9	—55.8	—60.8	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

* The atmospheric pressure corrected to the elevation of the radiosonde station.

* N = The number of cases the element has been observed during the month.

Table B 2.– MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE ; THE HIGHEST WIND SPEED IN THE UPPER AIR

JANUARY — 1973

	Station	Freezing Level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gmp)	Pressure (mb.)	Direction (000—360)	Speed in Knots
0000 U.T.	M. Matruh (A)	2491 (26)	759 (26)	—11.1 (25)	4270	614	—30.4	1210	830	— 6.8	10219 (7)	269 (7)	—50.9 (7)	11900	206	—57.3	6200	458	—32.4	1370	866	300	34
	Helwan . . .	2711 (31)	737 (31)	—13.3 (30)	4120	600	—18.2	820	919	— 3.9	10551 (11)	250 (11)	—52.7 (11)	11910	205	—60.0	9100	308	—44.3	13060	170	270	150
	Aswan . . (A)	4046 (30)	628 (30)	—16.5 (29)	4860	570	—21.4	1080	898	×××	15320 (1)	116 (1)	—72.6 (1)	—	—	—	—	—	—	3330	684	210	58
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	2386 (30)	767 (30)	—11.3 (30)	3850	640	—27.0	1290	870	— 0.7	10194 (14)	269 (14)	—52.7 (14)	12130	201	—56.2	6030	468	—31.5	7290	404	255	123
	Helwan . (A)	3040 (31)	711 (31)	—15.0 (31)	4373	600	—25.9	1180	882	— 6.8	12094 (21)	205 (21)	—55.5 (21)	16760	95	—70.5	9030	302	—46.5	12670	188	286	135
	Aswan . . (A)	4178 (30)	620 (30)	—18.3 (30)	4960	563	—22.0	1430	859	—11.6	16057	113	—72.0	18160	78	—78.9	13040	177	—57.3	10470	263	280	140

N = The number of cases the element has been observed during the month.

Table B 3 (*contd.*)—**NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.**

MERSA MATRUH (A) — JANUARY 1973

Station	Prussure Surface (Millibar)	Wind between specified ranges of direction (000–360°)																						Number of calm winds	Total number of observations (TN)	Mean scolar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 135		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	0	—	2	4	1	10	4	14	4	10	1	10	1	16	2	10	6	8	2	10	2	12	2	11	0	27	10
	1000	1	5	1	7	0	—	3	11	1	10	0	—	2	17	0	—	5	12	3	11	0	—	1	14	0	17	11
	850	0	—	0	—	0	—	1	9	0	—	2	13	2	15	1	18	4	20	3	13	0	—	1	10	0	14	15
	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	5	13	2	7	3	8	3	15	0	—	0	—	3	9	2	18	3	24	2	20	4	11	3	12	0	30	13
	1000	1	6	1	8	1	11	3	15	0	—	1	6	2	24	3	19	2	18	3	14	4	12	1	5	0	22	14
	850	0	—	0	—	0	—	0	—	3	15	2	11	2	10	4	16	3	18	4	10	3	14	0	—	0	21	15
	700	0	—	0	—	0	—	1	10	0	—	0	—	4	27	6	22	3	27	2	14	3	15	0	—	0	19	21
	600	0	—	1	10	0	—	0	—	0	—	0	—	0	—	6	37	7	31	3	21	1	28	0	—	0	18	30
	500	0	—	0	—	0	—	0	—	0	—	0	—	1	44	2	64	9	41	4	28	2	36	0	—	0	18	40
	400	0	—	0	—	0	—	0	—	0	—	0	—	2	34	3	66	6	68	2	88	3	26	0	—	0	16	58
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	69	3	82	2	73	3	45	0	—	0	9	66
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	76	1	61	0	—	0	—	0	3	71
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	74	1	65	0	—	0	—	0	3	71
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	77	1	72	0	—	0	—	0	2	74
	100	—	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	60	0	—	0	—	0	1	60
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3 (*contd.*).—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

HELWAN (A) JANUARY 1973

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360)°																						Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
Helwan 0000 UT	Surface	3	2	9	9	2	7	7	6	1	3	1	4	0	—	1	5	0	—	1	8	0	—	1	2	5	31	5
	1000	1	14	7	10	2	19	7	15	3	5	0	—	0	—	0	—	1	15	0	—	2	8	2	5	0	25	11
	850	3	23	2	16	2	30	1	8	1	23	1	25	4	17	3	19	4	21	5	34	2	3	1	9	0	29	23
	700	2	38	1	15	0	—	1	20	0	—	1	5	3	49	3	35	6	56	3	44	8	3	1	19	0	29	40
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	81	5	45	10	66	4	54	3	33	0	23	56
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	49	3	57	3	61	3	43	0	11	53
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	15	1	85	3	47	2	58	0	7	51
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	00	2	94	2	86	1	33	0	6	76
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	62	3	84	0	—	0	4	78
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	0	—	1	80	0	2	46
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	2	5	6	9	0	—	0	—	0	—	1	2	1	6	1	4	7	6	8	6	3	11	0	—	2	31	6
	1000	3	8	3	15	1	18	0	—	0	—	0	—	1	6	1	4	3	4	4	10	5	11	1	3	0	24	10
	850	2	16	1	43	2	21	1	14	3	9	1	3	1	17	3	10	5	19	3	26	6	20	2	18	0	30	18
	700	1	35	2	6	1	12	0	—	0	—	0	—	0	—	8	25	2	23	6	34	3	29	4	46	0	27	29
	600	3	33	0	—	0	—	0	—	0	—	0	—	0	—	1	51	6	40	13	42	1	7	0	—	0	24	39
	500	1	43	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	50	6	61	2	52	1	4	0	16	51
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	62	4	46	2	81	1	54	0	10	59
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	80	2	104	2	38	1	83	0	6	75
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	54	1	37	1	128	0	4	68
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	92	0	—	0	—	0	2	92
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	113	0	—	0	—	0	1	113
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed during the month.

Table B 3 (*contd.*)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A) — JANUARY 1973

Time	Pressure Surface Millibar	Wind between ranges of direction (000—360)°																						Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	15	10	8	10	1	6	0	—	1	6	0	—	0	—	0	—	0	—	0	—	1	14	3	8	1	30	9
	1000	3	10	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	12
	850	5	14	4	18	5	14	3	11	0	—	1	5	3	10	0	—	1	11	0	—	7	12	1	23	0	30	13
	700	3	31	0	—	3	12	1	15	0	—	0	—	1	44	0	—	3	27	6	36	3	18	3	20	0	23	26
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	5	0	—	2	34	0	—	0	-	0	3	24
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	1	20
	400	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1800 U.T.	Surface	14	10	6	10	3	14	0	—	2	8	0	—	0	—	0	—	1	3	1	3	1	24	1	14	1	30	10
	1000	2	13	2	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	12
	850	4	15	2	13	7	15	2	10	0	—	2	12	0	—	0	—	3	12	4	13	3	19	3	14	0	30	14
	700	5	18	0	—	1	12	0	—	0	—	0	—	1	11	1	11	11	26	4	34	5	22	2	24	0	30	23
	600	0	—	1	8	0	—	0	—	0	—	0	—	0	—	1	24	8	41	9	37	6	28	4	19	0	29	32
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	48	11	51	6	27	3	34	0	28	43
	400	1	27	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	74	13	79	5	43	0	—	0	26	58
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	76	15	82	4	74	0	—	0	23	80
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	99	7	83	3	84	0	—	0	18	90
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	82	8	97	0	—	0	—	0	12	92
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	88	1	58	0	—	0	4	80
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	51	0	—	0	—	0	1	51
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	29	0	—	0	—	0	1	29
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	45	0	—	0	—	0	1	45
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	23	0	—	0	—	0	1	23
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	0	—	0	—	0	—	0	1	14
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN — The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — JANUARY 1973

This month was rather normal as regards the mean daily air temperature and relative humidity. The total monthly rainfall was 17.5 mm. against 31.7 mm. for normal.

Three cold waves were experienced in the periods : (1st-6th), (12th-19th) and (30th-31st). The second cold wave was the most intense yielding the lowest maximum air temperature for the month 12.6°C) on the 14th, the lowest minimum air temperature (6.0°C) on both the 16th and 18th, the highest daily rainfall (11.7 mm.) on the 14th and the highest mean daily wind speed (9.3 m./sec.) on the 15th. Apart from these cold waves maximum air temperatures were slightly round normal.

The highest maximum soil temperatures were lower than the corresponding values of last January at depths between 2 and 20 cm. with departures between 1.1°C (at 10 cm.) and 0.2°C (at 20 cm.) ; higher by 0.5°C at 50 cm. and the same as last January at 100 cm. The lowest minimum soil temperatures were lower than last January at all depths except at 100 cm. where it was the same as last January ; the departures varied between 0.4°C (at 2 cm.) and 2.1°C (at 10 cm.).

The mean daily actual sunshine duration was lower by 0.6 hour than the corresponding value of January 1972. The mean daily wind speed at 1.5 m. and pan evaporation were higher than the corresponding values of January 1972 by 0.8 m./sec. and 1.51 mm. respectively.

TAHRIR — JANUARY 1973

For the month as a whole the mean daily air temperature was below normal, while the mean daily relative humidity was normal. The total monthly rainfall was 6.3 mm. against 10.2 mm. for normal.

Two cold waves were experienced in the periods : (1st-3rd) and (10th-19th). The second cold wave was prolonged and yielded lowest maximum air temperature for the month (14.6°C) on the 15th and the highest daily rainfall (5.7 mm.) on the 14th. During rest of the month maximum air temperatures were generally above normal. The daily minimum air temperatures were below normal the whole month apart from the 22nd, 30th and 31st when they were normal.

It is worthy of mention that minimum air temperature at 5 cm. above the dry and grass fields fell below 0°C on 4 and 5 days respectively duringthe month. The values of these minima and their dates of occurrence are given in the following :

Date	3	4	5	28
Min. air temp. (°C) at 5 cm. above the dry field	— 2.2	— 3.4	— 0.8	— 0.1

Date	3	4	5		28
Min. air temp. (°C) at 5 cm. above the grass field	— 4.0	— 4.9	— 1.5	— 0.4	— 1.0

The highest maximum soil temperatures in the dry field were lower than the corresponding values of last January at 2, 50, 100 cm. depths, higher at 5, 20 cm. and the same as last January at 10 cm., all the departures were slight and varied between 0.1° and 0.6°C. The lowest minimum soil temperatures in the dry field were lower than the corresponding values of last January at all depths with departures between 3.5°C (at 5 cm.) and 1.1°C (at 100 cm.).

The mean daily actual sunshine duration was higher than average by 1.0 hour. The mean daily wind speed at 1.5 met. height and pan evaporation were lower than average by 0.4 m/sec. and 0.81 mm. respectively.

BAHTIM — JANUARY 1973

For the month as a whole the mean daily air temperature and relative humidity were below average. The month was rainless apart from 4.6 mm. on the 14th, against 6.8 for average monthly rainfall.

Two cold waves were experienced in the periods (1st-4th) and (8th-18th). The second cold wave was prolonged and yielded the lowest maximum air temperature for the month (12.9°C) on the 15th. Apart from these cold waves maximum air temperatures were slightly above average in general. Minimum air temperatures were below average the whole month apart from the 13th, 21st, 22nd and 31st.

It is a characteristic feature of this month that minimum air temperature at 5 cm. above the dry and grass fields fell below 0°C on 13 days and 15 days respectively during this month. The values of these minima and their dates of occurrence are given in the following :

Date	2	3	4	5	6	7	8
Min. air temp. (°C) at 5 cm. above the dry field	—3.5	—3.7	—6.7	—3.8	—3.9	—3.0	—1.8
Date	16	17	20	27	28	29	
Min. air temp. (°C) at 5 cm. above the dry field	—1.6	—1.5	—0.8	—2.1	—1.2	—0.5	
Date	2	3	4	5	6	7	8	17
Min. air temp. (°C) at 5 cm. above the grass field	—2.8	—7.4	—6.5	—4.0	—1.8	—3.2	—1.8	—2.9
Date	18	20	26	27	28	29	30	
Min. air temp. (°C) at 5 cm. above the grass field	—2.2	—1.4	—2.4	—2.7	—2.4	—1.9	—0.9	

The highest maximum soil temperatures in the dry field were higher than the corresponding values of last January at depths between 2, 10 cm. with departures between 1.1°C (at 2 cm.) and 0.4°C (at both 5, 10 cm.) ; and were lower than last January at depths between 20, 100 cm. with departures between 0.3° and 0.9°C. The lowest minimum soil temperatures in the dry field were lower than the corresponding values of last January at all depths with departures between 4.9°C (at 2 cm.) and 0.5°C (at 100 cm.).

The mean daily wind speed at 1.5 m. height was lower than average by 0.2 m./sec. The mean daily actual sunshine duration and pan evaporation were higher than average by 0.8 hour and 0.13 mm.

KHARGA — JANUARY 1973

For the month as a whole the mean daily air temperature was slightly above average, and the mean daily relative humidity was slightly below average.

The month was intervened by three cold waves in the periods (1st-3rd), (12th-18th) and 31st. The second cold wave was prolonged and yielded the lowest maximum air temperature for the month (15.6°C) on the 15th, and the lowest minimum air temperature (0.0°C) on the 16th. Apart from these cold waves the daily maximum air temperatures were mostly above average.

Minimum air temperature at 5 cm. above soil fell below 0°C on 4 days during this month. The values of these minima and their dates of occurrence are given in the following :

Date	16	17	18	19
min. air temp. (°C) at 5 cm. above dry soil	—3.2	—2.1	—0.7	—1.2

The highest maximum soil temperatures were higher than the corresponding values of last January at all depths with marked departures ranging between 10.7°C (at 2 cm.) and 0.2°C (at both 50,100 cm). On the other hand, the lowest minimum soil temperatures were lower than the corresponding values of last January at all depths with departures between 3.0°C (at 10 cm.) and 0.1°C (at 100 cm.).

The mean daily wind speed at 1.5 m. height was lower than average by 0.2 m./sec. The mean daily actual sunshine duratoin and pan evaporation were higher than average by 0.3 hour and 0.15 mm.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

JANUARY — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	—5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
M. Matruh . .	17.8	8.8	13.2	11.5	15.0	24.0	24.0	24.0	19.9	7.2	0.3	0.0	0.0	0.0	0.0	0.0
Tahrir	20.4	4.7	11.4	8.1	14.8	24.0	23.9	21.4	12.8	6.7	0.9	0.0	0.0	0.0	0.0	0.0
Bahtim	19.5	3.5	10.8	7.3	14.2	24.0	23.7	20.0	12.3	6.2	1.0	0.0	0.0	0.0	0.0	0.0
Kharga . . .	22.8	5.9	14.4	11.3	17.5	24.0	24.0	22.8	18.2	10.6	4.3	0.8	0.0	0.0	0.0	0.0

Table C 2. -EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS

JANUARY — 1973

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh	21.4	25	12.6	14	12.2	1	5.0	14	4.1	15	—	—
Tahrir	24.0	25	14.6	15	8.2	22	—1.1	4	—3.4	4	—4.9	4
Bahtim	24.5	25	12.9	15	9.8	21	—1.9	4	—6.7	3,4	—7.4	3
Kharga	28.6	8	15.0	15	10.8	23	0.0	16	—3.2	16	—	—

Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY AND, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION AND RAINFALL

JANUARY — 1973

STATION	(Solar+Sky Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
M.Maturh	—	*251.1	*300.6	72	69	61	28	25	7.9	9.0	12.0	22	4.0	26	4.9	4.45	17.7	11.7	14
Tahrir .	244.4	253.2	323 2	78	69	43	20	26	6.7	6.8	10.7	8	3.3	21	3.4	3.23	6.3	5.7	14
Bahtim .	259.5	234.3	324 5	72	65	41	13	4	6.2	6.4	10.5	22	2.3	3	4.3	3.55	4.6	4.6	14
Kharga	323.4	308.4	334.0	92	40	27	11	20	4.7	5.2	8.3	24	2.4	20.21	6.9	6.39	0.0	0.0	—

* Total for 29 days.

Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms) IN DIFFERENT FIELDS

JANUARY — 1973

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
Mersa Matruh.	H	19.5	18.4	16.7	15.2	16.2	18.0	21.3	—	—	—	—	—	—	—	—	—
	L	1.7	5.2	7.0	9.6	12.5	16.0	19.3	—	—	—	—	—	—	—	—	—
Tahrir . . .	H	24.7	23.0	19.8	17.2	15.0	16.6	20 4	22 4	18.3	17.4	16.5	15.2	13 8	15.4	18.2	—
	L	3 0	4.4	5.9	8.2	11.7	15.3	18.5	20.6	4.1	5.2	5.6	7.8	12.0	14.1	16.6	—
Bahtim. . . .	H	28.0	20.8	18.4	16.8	18.1	20.7	24.4	25.5	16.8	15.8	13.6	12.8	14.6	16.8	20.5	—
	L	-0.3	3.4	7.7	12.9	16.7	19.1	22.5	24.4	2.3	4.8	7.4	9.5	13.0	15.3	18.8	—
Kharga	H	38.8	32.2	27.3	22.0	21.2	23.7	27.2	28.8	—	—	—	—	—	—	—	—
	L	3.1	5.3	8.4	13.8	19.0	22.3	23.6	27.7	—	—	—	—	—	—	—	—

TABLE C 5.—SURFACE WIND

JANUARY 1973

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres							Max. Gust (konts) (10 metres)	
	Mean of the day	Night time mean	Day time mean	≥ 10 (knots)	≥ 15 (knots)	≥ 20 (knots)	≥ 25 (knots)	≥ 30 (knots)	≥ 35 (knots)	≥ 40 (knots)	Value (knots)	Date
M. Matruh .	3.8	3.2	4.4	31	23	19	10	7	3	2	57	14
Tahrir . . .	1.9	1.3	2.5	26	16	7	3	1	1	0	46	14
Bahtim. . .	2.0	1.3	2.6	21	12	6	3	1	0	0	40	14
Kharga . .	2.4	1.8	3.1	21	13	4	0	0	0	0	28	14

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MONTHLY WEATHER REPORT

VOLUME 16 NUMBER 2

FEBRUARY, 1973

U.D.C. 551, 506.1 (62)

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT — CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues serveral reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :
"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

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THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

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THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

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TECHNICAL NOTES

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CAIRO

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Note : For explanatory notes on the tables please refer to Volume 16, Number 1 (January 1973).

GENERAL SUMMARY OF WEATHER CONDITIONS

FEBRUARY 1973

Normal winter weather during the first half of the month. Two khamsin heat waves in the second half, the first of which was excessive. Subnormal rainfall.

PRESSURE DISTRIBUTION

Five Mediterranean depressions or their associated troughs travessed the East Mediterranean area on the 4th, 7th, 13th, 18th and 28th.

Two desert depressions passed through north Egypt on the 17th and 21st.

Apart from these depressions, high pressure established over the region.

SURFACE WIND

Surface winds were markedly changeable, generally Wly & NWly light to moderate in the northern parts. SEly & SWly winds fresh to strong at times prevailed in association with the khamsin waves.

Nly & NWly winds light to moderate prevailed mostly in the southern parts.

TEMPERATURE

Apart from two short warm spells, weather during the first half of February was mild day time, rather cold night time.

The second half of the month was characterized by two khamsin heat waves, the first of which prevailed most of the third week and was excessive, causing considerable departures of maximum and minimum air temperatures above normal.

Apart from the warm spells and khamsin waves, maximum air temperatures were below normal.

The highest and lowest maximum air temperatures recorded were 42.3°C at Kharga on the 21st and 15.4°C at Port Said on the 7th. respectively.

Minimum air temperatures showed frequent variations above and below normal. Departures from normal were slight to moderate in general.

Records for the highest minimum air temperatures were attained at : Minya (16.0°C) on the 21st and at Aswan (19.5°C) on the 21st.

The highest and lowest minimum air temperatures recorded were 19.5°C at Aswan on the 21st. and — 1.0°C at Dakhla on the 1st respectively.

PRECIPITATION

Light rain fell over the northern parts in few days.

The monthly rainfall amounts were markedly below normal.

The maximum daily rainfall was 3.6 mm at Alexandria on the 22nd.

The maximum monthly rainfall was 5.3 mm at Alexandria.

OTHER WEATHER PHENOMENA

Early morning mist and fog developed over scattered places in Delta, Cairo and Middle Egypt during several days.

Rising sand occurred over scattered place with local sandstorms in association with th two khamsin heat waves.

Cairo, March 1975

Chairman (M. F. TAHA.)
Board of Directors

SURFACE DATA

Table A 1.— MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

FEBRUARY -- 1973

STATION	Atmospheric Presure (mbs) M.S.L		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Houre)			Piche Evaporation mms.
			Maximum		Minimum			Dry Bulb		Wet Bulb						
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average	A+B 2	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	Mean
Sallum	1014.9	—2.4	20.8	+0.9	10.9	+0.9	15.8	15.5	+1.2	10.6	0.0	50	—4	—	—	—	7.3
Mersa Matruh. (A)	1015.4	—1.8	19.8	+0.9	9.3	+0.8	14.6	14.6	+1.2	11.0	+0.7	61	—3	229.9	309.9	74	5.9
Alexandria . (A)	1016.1	—1.2	20.6	+1.3	9.0	—0.4	14.8	14.6	+0.4	11.4	+0.3	65	—2	232.4	310.5	74	4.5
Port Said . . (A)	1015.1	—1.9	21.1	+2.4	11.6	—0.1	16.4	15.6	+0.8	12.3	+0.3	65	—4	231.1	310.5	75	4.7
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1015.9	—1.7	22.2	+1.3	6.7	0.0	14.5	13.8	+0.7	10.0	—0.1	59	—7	242.0	311.3	77	4.6
Cairo . . . . (A)	1015.8	—1.7	22.9	+2.3	10.5	+1.1	16.7	16.5	+1.6	11.1	+0.6	48	—6	--	--	—	9.6
Fayoum.	—	—	23.8	+1.6	7.2	—0.2	15.5	15.1	+0.4	11.0	+0.8	57	+3	—	—	—	4.6
Minya . . . . (A)	1015.9	—1.8	24·0	+1.5	6.4	+1.2	15.2	15.0	+1.6	10.2	+1.2	51	—2	238.0	314.0	75	6.9
Assyout. . . . (A)	1014.7	—2.5	24.8	+2.1	8.8	+1.2	16.8	16.3	+1.2	10.2	+0.9	41	0	—	—	—	9.1
Luxor . . . . (A)	1014.6	—1.5	28.3	+2.9	9.1	+2.2	18.7	18.0	+2.0	11.5	+1.4	40	—2	—	—	—	6.0
Aswan . . . . (A)	1014.3	—1.5	28.9	+2.8	12.0	+2.6	20.4	20.1	+2.4	10.7	+1.3	23	—2	—	—	—	13.0
Siwa	1015.6	—2.1	22.4	+0.6	6.3	+0.4	14.4	14.1	0.0	8.8	0.0	44	—1	239.7	312.9	76	6.2
Bahariya	1016.5	—1.7	23.9	+1.6	7.9	+1.5	15.8	15.8	+1.6	9.4	+0.6	37	—7	—	—	—	7.3
Farafra	1017.4	—2.1	24.8	+2.1	6.7	+1.4	15.8	15.8	+2.0	8.9	+1.4	33	—7	—	—	—	9.0
Dakhla	1016.9	—1.2	26.6	+2.8	5.9	+0.3	16.2	15.9	+1.8	8.6	+0.4	30	—3	—	—	—	9.4
Kharga	1015.5	—1.7	27.1	+2.7	9.1	+1.9	18.1	18.2	+2.1	9.5	+0.6	24	—12	271.8	317.0	87	9.5
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1015.1	—0.6	24.1	+2.7	11.9	+1.9	18.0	18.2	+1.6	13.2	+1.9	54	+5	268.1	315.4	85	8.2
Quseir	1014.3	—1.7	24.0	+1.1	15.3	+0.9	19.6	19.8	+1.3	14.2	—1.6	51	+5	—	—	—	7.5

Table A 2. MAXIMUM AND MINIMUM AIR TEMPERATURES

FEBRUARY - - 1973

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Sallum	30.3	17	17.8	19,20	2	1	0	0	0	10.3	—	14.9	16	7.6	23	7	0	0	0
Mersa Matruh (A)	31.2	17	16.8	23	2	1	0	0	0	7.7	—	13.5	16,17	5.5	19	16	0	0	0
Alexandria (A)	32.7	17	17.0	23	3	1	0	0	0	7.4	—	14.5	22	5.6	7	19	0	0	0
Port Said (A)	31.9	17	15.4	7	2	1	0	0	0	11.1	—	15.4	17	8.5	8	6	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	31.4	17	18.3	2	5	1	0	0	0	—	—	13.0	21	2.8	3	27	5	0	0
Cairo (A)	34.2	17	18.2	7	6	2	0	0	0	—	—	16.8	17	5.8	3	13	0	0	0
Fayoum	33.4	17	19.9	23	6	2	0	0	0	5.3	—	15.8	21	3.8	1	23	5	0	0
Minya (A)	33.6	17	19.2	5	9	2	0	0	0	5.1	—	16.0	21	2.6	2	22	11	0	0
Assyout (A)	39.8	21	19.7	1	11	4	2	0	0	5.7	—	16.3	21	4.0	2	20	2	0	0
Luxor (A)	38.5	21	22.4	1	20	8	1	0	0	3.7	—	17.7	22	3.0	1	18	3	0	0
Aswan (A)	39.0	21	22.1	9	19	10	4	0	0	—	—	19.5	21	6.0	9	7	0	0	0
Siwa	34.2	17	18.4	2-7	5	3	0	0	0	5.7	—	13.4	21	1.4	2	23	11	0	0
Bahariya	35.9	17	18.2	7	10	3	1	0	0	7.0	—	15.3	21	4.0	3	21	3	0	0
Farafra	36.9	17	18.6	1	11	4	1	0	0	6.2	—	13.3	18	1.2	3	24	9	0	0
Dakhla	40.1	21	19.4	8	11	7	3	1	0	5.9	—	14.2	18	—1.0	1	22	13	3	0
Kharga	42.3	21	21.0	8-9	16	7	3	1	0	7.2	—	16.6	22	2.8	2	15	6	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	28.4	17	21.0	1	8	0	0	0	0	-	—	16.7	22	8.6	3	5	0	0	0
Quseir	30.2	22	20.5	1	6	1	0	0	0	13.2	—	19.1	22	12.4	13	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

FEBRUARY — 1973

STATION	Mean Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amouut	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	3.4	1.9	2.9	2.1	2.7	0.0	—10.3	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	1.7	2.5	3.9	2.0	2.5	0.3	—15.2	0.3	5	1	1	0	0	0	0	0
Alexandria (A)	4.4	3.9	4.0	2.6	3.6	5.3	—21.8	3.6	22	0	4	2	0	0	0	0
Port Said (A)	1.4	2.1	2.1	1.3	1.8	0.0	—11.3	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1.0	2.3	3.4	1.0	2.0	0.3	— 6.7	0.3	8	1	1	0	0	0	0	0
Cairo (A)	1.0	3.0	4.0	2.1	2.6	Tr.	— 3.9	Tr.	8-19	2	0	0	0	0	0	0
Fayoum	—	2.5	3.4	1.2	—	0.0	— 1.4	0.0	—	0	0	0	0	0	0	0
Minya (A)	1.2	2.7	3.0	1.5	2.1	Tr.	— 1.1	Tr.	18-21	2	0	0	0	0	0	0
Assyout (A)	0.4	1.7	1.9	1.2	1.2	0.0	— 0.4	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.8	1.7	2.2	1.6	1.4	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.3	1.1	1.3	0.9	0.9	0.0	— 0.0	0.0	—	0	0	0	0	0	0	0
Siwa	2.6	2.3	2.3	2.0	2.2	0.3	— 2.0	0.3	21	0	1	0	0	0	0	0
Bahariya	1.8	2.1	2.6	1.8	2.0	Tr.	— 1.3	Tr.	18	1	0	0	0	0	0	0
Farafra	—	2.8	3.0	1.7	—	Tr.	+ Tr.	Tr.	20	1	0	0	0	0	0	0
Dakhla	0.1	1.1	1.1	0.5	0.7	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Kharga	0.5	1.6	1.5	0.8	1.1	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.0	2.1	2.5	1.8	1.8	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Quseir	0.2	1.8	2.5	1.1	1.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

FEBRUARY — 1973

Station	Precipitation				Forst	Thunderstorm,	Mist Vis ≥1000 metres	Fog Vis <1000 Metres	Haze Vis 1000 Metres Al	Thick Haze Vis <1000 Metres	Dust or Sandstorm Vis ≥1000 Metres	Dust or Sandstorm Vis <1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice, Pellets	Hail											
Sallum	0	0	0	0	0	0	0	0	0	0	6	0	0	12	0
Mersa Matruh (A)	1	0	0	0	0	0	0	0	1	0	13	2	0	12	3
Alexandria (A)	4	0	0	0	0	0	3	3	0	2	9	0	0	7	1
Port Said (A)	0	0	0	0	0	0	0	0	0	0	6	0	0	18	1
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1	0	0	0	0	0	7	0	0	1	3	0	0	16	1
Cairo (A)	0	0	0	0	0	0	6	2	8	1	9	0	0	11	1
Fayoum	0	0	0	0	0	0	1	0	1	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	8	1	11	0	11	0	0	14	1
Assyout (A)	0	0	0	0	0	0	0	0	3	0	3	1	0	20	0
Luxor (A)	0	0	0	0	0	0	0	0	21	0	3	0	0	19	0
Aswan A)	0	0	0	0	0	0	0	0	6	0	12	0	0	23	0
Siwa	1	0	0	0	0	0	0	0	0	0	12	0	0	15	2
Bahariya	0	0	0	0	0	0	0	0	0	0	1	0	0	16	0
Farafra	0	0	0	0	0	0	0	0	4	0	4	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	4	0	0	27	0
Kharga	0	0	0	0	0	0	0	0	0	0	4	0	0	21	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	6	0	0	17	1
Quseir	0	0	0	0	0	0	1	0	1	0	2	0	0	19	0

TABLE A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

FEBRUARY — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	12	0	0	1–10	5	13	30	35	30	33	15	25	45	66	67	46	410
				11–27	0	0	2	7	1	0	10	9	50	92	60	18	249
				28–47	0	0	0	0	0	0	0	0	0	0	1	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**5**	**13**	**32**	**42**	**31**	**33**	**25**	**34**	**95**	**158**	**128**	**64**	**660**
Mersa Matruh (A)	6	0	0	1–10	13	7	8	29	26	56	35	34	48	18	9	21	304
				11–27	2	5	7	29	15	29	24	40	79	48	54	26	358
				28–47	0	6	0	0	0	0	4	0	0	0	0	0	4
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**15**	**12**	**15**	**58**	**41**	**85**	**63**	**74**	**127**	**66**	**63**	**47**	**666**
Alexandria (A)	6	0	0	1–10	58	75	57	42	50	33	33	41	21	17	16	35	478
				11–27	3	9	22	3	0	1	5	14	40	46	29	22	194
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**61**	**84**	**79**	**45**	**50**	**34**	**38**	**55**	**61**	**63**	**45**	**57**	**672**
Tanta	24	0	0	1–10	48	7	47	38	23	32	47	41	60	3	44	52	557
				11–27	3	0	13	2	2	0	7	6	14	22	16	6	91
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**51**	**76**	**60**	**40**	**31**	**32**	**54**	**47**	**74**	**65**	**60**	**58**	648
Cairo	83	3	0	1–10	19	52	45	33	19	18	42	31	19	29	29	17	363
				11–27	7	47	5	2	3	37	49	**32**	21	17	2	1	223
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**26**	**99**	**50**	**35**	**22**	**55**	**91**	**63**	**40**	**46**	**31**	**18**	**586**
Fayoum	6	14	0	1–10	133	89	25	12	9	40	61	101	61	32	30	34	627
				11–27	0	10	0	0	0	0	1	8	1	5	0	0	25
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**133**	**99**	**25**	**12**	**9**	**40**	**62**	**109**	**62**	**37**	**30**	**34**	**652**
Minya	7	0	0	1–10	180	38	11	2	4	41	101	16	22	33	34	44	526
				11–27	80	7	0	1	0	2	28	1	2	2	5	11	139
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**260**	**45**	**11**	**3**	**4**	**43**	**129**	**17**	**24**	**35**	**39**	**55**	**665**
Asyout	123	0	0	1–10	39	20	10	26	18	30	18	7	4	69	154	98	493
				11–27	8	0	1	0	2	0	6	3	0	2	9	25	56
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**47**	**20**	**11**	**26**	**20**	**30**	**24**	**10**	**4**	**71**	**163**	**123**	**549**

Table A 5 (*contd.*) – NUMBER IN HOURS OF OCCURENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

FEBRUARY — 1973

Station	calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Luxor . . . . (A)	68	0	0	1—10	100	63	32	38	27	24	69	31	20	41	64	89	598
				11—27	1	0	0	0	0	0	0	0	0	0	0	5	6
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**101**	**63**	**32**	**38**	**27**	**24**	**69**	**31**	**20**	**41**	**64**	**94**	**604**
Aswan . . . . (A)	13	0	0	1—10	198	117	7	4	2	7	15	8	8	3	6	79	454
				11—27	89	37	1	0	0	1	4	1	2	0	0	70	205
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**287**	**154**	**8**	**4**	**2**	**8**	**19**	**9**	**10**	**3**	**6**	**149**	**659**
Siwa	42	2	0	1—10	8	12	10	18	71	46	19	21	21	95	79	31	481
				11—27	1	0	0	26	6	10	4	6	10	19	44	19	145
				28—47	0	0	0	0	0	0	0	0	0	0	1	1	2
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**9**	**12**	**10**	**94**	**77**	**56**	**23**	**27**	**31**	**114**	**124**	**51**	**628**
Dakhla	18	26	0	1—10	44	28	23	48	46	37	49	23	30	26	92	118	564
				11—27	27	1	0	0	0	0	0	0	0	1	1	34	64
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**71**	**29**	**23**	**48**	**46**	**37**	**49**	**23**	**30**	**27**	**93**	**152**	**628**
Kharga	8	1	0	1—10	179	101	33	15	20	22	26	17	11	24	32	70	550
				11—27	77	18	0	0	0	0	1	0	4	0	0	13	113
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**256**	**119**	**33**	**15**	**20**	**22**	**27**	**17**	**15**	**24**	**32**	**83**	**663**
Hurghada	23	6	0	1—10	26	23	13	9	22	31	25	8	10	29	98	32	326
				11—27	64	11	0	0	0	11	0	0	0	0	84	134	304
				28—47	3	0	0	0	0	0	0	0	0	0	0	16	19
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**93**	**34**	**13**	**9**	**22**	**42**	**25**	**8**	**10**	**29**	**182**	**182**	**649**
Quseir	2	0	0	1—10	18	45	34	12	6	23	25	22	17	43	105	104	454
				11—27	68	112	2	0	0	0	4	0	0	0	1	29	216
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**86**	**157**	**36**	**12**	**6**	**23**	**29**	**22**	**17**	**43**	**106**	**133**	**670**

UPPER AIR CLIMATOLOGICAL DATA

Table B 1. MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES.

FEBRUARY — 1973

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 0000 U.T.	Surface	25	*1013mb.	*1022mb.	*1008mb.	25	12.0	17.0	9.2	25	6.6
	1000	25	149	211	92	25	13.2	19.0	9.8	25	5.3
	850	25	1506	1588	1457	25	6.8	18.1	1.2	24	— 6.0
	700	24	3079	3139	3005	23	0.3	5.3	— 7.6	23	—18.8
	600	24	4296	4384	4193	24	— 7.4	— 0.3	—13.7	24	—24.0
	500	23	5691	5810	5571	23	—20.0	—11.7	—23.2	23	—33.7
	400	21	7328	7466	7185	21	—28.3	—24.1	—35.5	20	—42.3
	300	18	9330	9476	9155	18	—41.9	—33.7	—46.9	14	—56.7
	250	14	10528	10728	10345	14	— 9.8	—43.3	—54.7	14	—63.3
	200	12	11973	12189	11756	12	—51.9	—46.5	—60.5	8	—67.6
	150	8	13783	13874	13585	8	—58.4	—54.1	—64.9	2	—75.6
	100	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	
Helwan 0000 U.T.	Surface	28	*999mb.	*1007mb.	*991mb.	28	12.9	24.2	8.9	28	3.9
	1000	27	133	196	63	12	11.2	14.5	9.2	12	6.5
	850	27	1495	1533	1447	27	9.4	21.4	0.0	27	— 8.0
	700	27	3085	3145	3013	27	1.9	7.8	— 6.0	27	—14.6
	600	27	4314	4387	4210	27	— 6.0	— 2.3	—13.5	27	—20.1
	500	27	5744	5809	5618	27	—14.8	—10.2	—20.7	27	—29.5
	400	27	7370	7477	7233	26	—26.7	—18.6	—32.1	25	—39.7
	300	24	9388	9510	9193	24	—41.5	—34.5	—46.0	22	—53.8
	250	22	10597	10729	10403	22	—49.0	—42.0	—58.4	22	—59.8
	200	17	12057	12215	11852	17	—56.2	—50.0	—66.5	14	—65.4
	150	10	13867	13969	13697	10	—60.5	—54.7	—65.3	2	—67.9
	100	1	16475	—	—	1	—60.2	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 0000 U.T.	Surface	28	*992mb.	*1000mb.	*985mb.	28	15.4	22.5	10.0	28	0.8
	1000	28	127	193	63	1	10.0	—	—	1	4.3
	850	28	1445	1545	1377	28	16.0	23.9	6.2	28	— 3.1
	700	28	3145	3195	3101	28	8.1	11.4	2.8	28	— 8.4
	600	28	4397	4459	4333	28	— 0.7	3.6	— 5.5	28	—15.9
	500	28	5829	5901	5743	27	—10.4	— 6.5	—15.4	27	—24.6
	400	28	7710	7606	7397	27	—22.5	—19.2	—26.2	27	—33.5
	300	26	9573	9682	9437	26	—35.0	—30.7	—40.7	26	—47.0
	250	26	10822	10944	10672	25	—43.8	—38.5	—49.4	26	—54.4
	200	26	12291	12413	12103	26	—53.4	—49.9	—57.9	26	—62.9
	150	25	13904	14236	13884	25	—63.0	—59.6	—66.9	1	—68.7
	100	5	16564	16606	16471	5	—73.9	—70.1	—79.8	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

UPPER AIR CLIMATOLOGICAL DATA

Table B 1 (*contd.*).—MONTHLY MEAN AND MONTHLY ABSOLUTE HIGHER AND LOWER VALUES OF ALTITUDE, AIR TEMPERATURE AND DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

FEBRUARY — 1973

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 VT	Surface	28	1014m.b.*	1023m.b.*	1001m.b.*	28	18.1	28.1	14.2	28	5.7
	1000	28	146	223	63	28	16.8	28.1	13.0	28	4.7
	850	27	1505	1553	1461	27	6.2	18.4	0.4	27	— 6.7
	700	27	3077	3155	2947	27	0.3	6.7	— 6.3	27	—17.2
	600	26	4296	4379	4203	26	— 6.7	— 2.1	—13.4	26	—23.6
	500	25	5693	5794	5586	26	—16.1	— 8.5	—23.1	25	—30.9
	400	24	7339	7471	7205	24	—27.7	—19.3	—32.9	24	—42.2
	300	23	9334	9494	9171	23	—43.1	—31.8	—48.7	22	—55.7
	250	22	10543	10732	10345	22	—49.9	—39.8	—56.0	19	—63.0
	200	19	11913	12198	11755	19	—55.0	—49.9	—61.3	14	—66.3
	150	16	13796	13982	13669	16	—58.2	—53.2	—61.0	7	—69.4
	100	11	16289	16439	16197	11	—64.3	—60.6	—70.8	1	—70.6
	70	8	18424	18519	18359	8	—65.0	—59.9	—72.0	—	—
	60	5	19468	19680	19370	5	—63.8	—62.0	—65.7	—	—
	50	5	20165	20374	29358	5	—65.8	—61.9	—74.8	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—		
Helwan 1200 U.T.	Surface	28	998m.b.*	1007m.b.*	988m.b.*	28	21.4	32.6	17.0	28	2.5
	1000	28	125	202	36	10	18.2	21.2	13.0	10	3.0
	850	27	1501	1554	1443	27	10.9	21.2	3.6	26	— 6.7
	700	27	3100	3156	3034	24	2.8	10.4	— 2.1	24	—17.9
	600	27	4333	4405	4237	27	— 4.2	9.2	—13.4	26	—23.6
	500	27	5744	5824	5601	27	—14.3	— 9.4	—22.1	27	—30.2
	400	26	7396	7503	7218	26	—25.4	—17.3	—29.9	25	—41.3
	300	26	9423	9555	9222	26	—40.0	—32.3	—43.3	26	—54.2
	250	24	10644	10788	10442	24	—47.7	—37.3	—54.0	22	—61.3
	200	22	12093	12258	11892	22	—53.2	—44.0	—62.1	19	—65.8
	150	20	13930	14076	13711	19	—58.8	—54.5	—70.1	11	—69.6
	100	16	16427	16529	16231	16	—67.4	—61.0	—73.7	—	—
	70	11	18556	18648	18376	11	—67.4	—58.9	—73.7	—	—
	60	8	19506	19610	19330	8	—67.3	—62.5	—72.8	—	—
	50	7	20597	20688	20426	7	—66.6	—61.0	—69.2	—	—
	40	2	22010	22040	21980	2	—65.2	—64.0	—66.4	—	—
	30	2	23684	23738	23630	2	—61.6	—60.1	—63.2	—	—
	20	1	26196	—	—	1	—50.0	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	27	991m.b.*	998m.b.*	985m.b.*	27	26.9	37.4	20.5	27	5.2
	1000	27	117	176	58	—	—	—	—	—	—
	850	27	1522	1549	1481	27	17.2	27.5	7.0	27	— 4.7
	700	27	3159	3209	3108	27	9.4	14.2	4.0	27	—11.1
	600	27	4419	4479	4344	27	0.9	7.1	— 3.5	27	—17.2
	500	27	5860	5936	5757	27	— 8.8	— 4.2	—12.5	27	—25.8
	400	27	7551	7665	7419	26	—21.0	—14.9	—26.4	26	—35.9
	300	26	9631	9780	9477	26	—33.8	—28.8	—40.7	26	—47.5
	250	26	10808	11055	10671	26	—43.0	—39.6	—49.1	26	—56.2
	200	26	12363	12512	12157	26	—52.1	—48.5	—58.6	26	—63.8
	150	26	14190	14385	14001	26	—59.2	—57.5	—66.0	4	—69.8
	100	25	16645	16814	16478	25	—72.0	—66.5	—78.7	—	—
	70	24	18733	18868	18583	24	—73.1	—64.9	—79.0	—	—
	60	17	19671	19810	19560	17	—71.5	—66.3	—75.5	—	—
	50	17	20728	20877	20613	17	—68.4	—61.5	—72.7	—	—
	40	8	22171	22290	21970	8	—63.2	—60.5	—65.3	—	—
	30	6	23890	23970	23811	6	—60.2	—58.2	—62.7	—	—
	20	1	26571	—	—	1	—50.5	—	—	—	—
	10	—	—	—	—	—	—	—	—		

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

Table B 2.– MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE.

THE HIGHEST WIND SPEED IN THE UPPER AIR

FEBRUARY — 1973

	Station	Freezing level									First tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000–360)°	Speed in knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	2910 (24)	653 (24)	—16.9 (24)	4280	606	—23.5	1660	830	—3.5	10491 (7)	249 (7)	—55.1 (7)	11480	217	—60.0	9160	298	—53.3	2290	707	240	42
	Helwan . . .	3255 (27)	690 (27)	—13.9 (27)	4030	628	— 7.9	1521	850	— 2.9	10893 (6)	244 (6)	—56.9 (6)	13730	156	—64.1	9010	313	—62.7	7680	384	280	132
	Aswan . . (A)	4306 (28)	608 (28)	—15.3 (28)	4920	563	—23.3	3610	660	—13.8	—	—	—	—	—	—	—	—	—	5740	508	030	117
1200 U.T.											(N)	(N)	(N)										
	M. Matruh (A)	2887 (26)	720 (26)	—14.9 (26)	3910	634	—20.7	1610	838	— 6.1	10968 (15)	236 (15)	—54.9 (15)	12260	197	—57.2	8700	331	—40.0	11160	226	230	120
	Helwan . . .	3613 (27)	665 (27)	—18.0 (27)	4440	598	—21.4	2070	794	— 5.7	12257 (18)	205 (18)	—57.4 (18)	17000	92	—71.2	8920	320	—40.5	6350	468	245	146
	Aswan . . (A)	4521 (27)	595 (27)	—18.2 (27)	5200	548	—23.4	3820	647	—19.0	17427 (18)	89 (18)	—74.6 (18)	19260	66	—77.5	16050	109	—68.0	12620	192	260	130

N= The number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

MERSA MATRUH (A) -- FEBRAURY 1973

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000—360)°																						Number of calm winds	Total number of observations (TN)	Mean scalar wind d
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	0	—	0	—	0	—	4	10	2	7	3	8	1	24	2	12	8	11	1	22	2	9	1	5	1	25	10
	1000	1	4	0	—	0	—	2	18	4	15	0	—	0	—	2	25	4	15	5	19	1	20	0	—	0	19	17
	850	0	—	0	—	1	26	1	16	0	—	2	14	1	22	2	16	7	24	1	24	3	11	1	22	0	19	20
	700	0	—	0	—	0	—	0	—	0	—	1	29	0	—	0	—	2	30	0	—	0	—	0	—	0	3	30
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	2	10	0	—	0	—	4	14	3	15	0	—	1	25	3	14	3	15	8	19	1	25	3	14	0	28	16
	1000	0	—	1	12	3	17	1	22	0	—	1	6	0	—	3	13	3	17	5	20	6	15	0	—	0	23	16
	850	0	—	1	11	0	—	0	—	2	10	2	8	2	10	5	18	4	19	4	20	1	16	0	—	0	21	15
	700	0	—	0	—	0	—	0	—	0	—	0	—	2	34	5	26	7	27	1	40	0	—	2	13	0	17	27
	600	0	—	0	—	0	—	0	—	0	—	0	—	1	62	3	42	7	36	2	26	1	12	0	—	0	14	36
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	29	5	47	1	52	1	22	2	26	0	11	38
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	36	4	53	1	24	0	—	1	22	0	8	36
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	63	1	46	0	—	1	24	0	6	54
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	70	1	64	0	—	1	25	0	4	58
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	120	1	78	0	—	1	29	0	3	76
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	78	0	—	0	—	0	1	78
	100	—	—	—	—	0	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during themonth.

Table B 3 (*contd.*)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

HELWAN — FEBRUARY 1973

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000–360)°																						Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	2	4	10	8	0	—	1	10	4	5	2	4	0	—	0	—	1	4	0	—	0	—	4	4	4	28	5
	1000	3	13	5	15	2	20	0	—	1	4	0	—	0	—	0	—	0	—	1	9	0	—	0	—	1	13	13
	850	2	14	2	22	2	14	0	—	0	—	0	—	1	25	3	25	7	27	5	28	3	28	2	16	0	27	24
	700	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	44	10	36	3	24	1	24	0	23	36
	600	2	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	54	6	40	2	50	1	37	0	17	47
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	75	6	68	4	84	0	—	0	13	63
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	90	0	—	1	24	0	3	68
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	1	4	5	11	1	9	0	—	0	—	2	14	0	—	6	10	4	13	3	6	1	5	4	8	1	28	9
	1000	1	4	4	13	1	14	0	—	0	—	0	—	0	—	2	16	0	—	0	—	2	9	0	—	0	10	12
	850	0	—	2	22	2	12	0	—	0	—	1	8	1	11	5	28	7	24	4	25	2	24	3	12	0	27	22
	700	2	16	0	—	0	—	0	—	0	—	0	—	0	—	3	53	9	50	7	34	4	35	0	—	0	25	41
	600	1	22	0	—	0	—	0	—	0	—	0	—	1	38	3	58	5	47	7	45	1	39	0	—	0	18	46
	500	1	64	0	—	0	—	0	—	0	—	0	—	0	—	1	85	4	73	7	50	1	42	0	—	0	14	59
	400	1	54	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	102	3	39	1	36	0	—	0	7	59
	300	1	62	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	78	2	83	0	—	0	5	77
	250	1	75	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	110	1	103	1	89	0	5	97
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	100	0	—	0	—	0	1	100
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3. –*(contd.)* **NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**

ASWAN (A) FEBRUARY 1973

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000–360°)																						Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar wind Speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 T.U.	Surface	22	11	3	9	0	—	0	--	0	—	1	4	0	—	1	8	0	—	0	—	0	—	0	—	1	28	9
	1000	0	—	1	10	0	—	0	--	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	10
	850	4	9	6	14	3	9	2	11	0	—	1	11	0	—	0	—	2	19	2	12	3	6	4	13	0	27	12
	700	4	11	1	12	0	—	0	—	0	—	0	—	1	26	0	—	3	46	5	25	4	16	3	18	0	21	22
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	34	0	—	0	4	34
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	17	11	3	9	1	12	0	—	0	—	1	3	2	4	0	—	0	—	0	—	0	—	2	12	1	27	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	1	15	3	10	3	9	0	—	1	10	2	10	1	8	1	12	3	9	3	9	2	12	7	11	0	27	10
	700	1	11	2	14	0	--	0	—	0	--	1	5	0	—	0	—	8	30	11	23	2	19	2	14	0	27	22
	600	1	45	0	—	0	--	0	—	0	--	0	—	0	—	0	—	7	36	14	36	2	16	0	--	0	24	32
	500	1	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	56	9	37	3	28	1	14	0	22	41
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	10	64	3	47	5	57	2	32	0	20	56
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	89	4	76	3	85	1	22	0	9	75
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	88	3	79	1	70	0	--	0	7	79
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	77	4	92	0	—	0	—	0	5	89
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	76	0	—	0	—	0	3	76
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	--	1	81	0	—	0	—	0	1	81
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N=The number of cases the element has been observed during the month.

TN=The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — FEBRUARY 1973

For the month as a whole the mean daily air temperature and relative humidity were above normal. The month was rainless apart from 0.3 mm. on the 5th and trace on the 7th, against 15.5 mm. for normal monthly rainfall.

The month was intervened with two warm spells in the periods (15th-17th) and (25th-28th). The first warm spell yielded the highest maximum air temperature for the month (31.7°C) on the 17th and the highest minimum air temperature (13.5°C) on the 16*th* & 17*th*. Apart from these warm spells the daily maximum air temperatures were rather normal.

The highest maximum soil temperatures were higher than the corresponding values of last February at all depths with departures between 1.8°C (at 2 cm.) and 0.2°C (at 20 cm.). The lowest minimum soil temperatures were higher than the corresponding values of last February at all depths apart from 100 cm. where it was lower by 0.2°C ; the departures varied between 1.3°C (at 2 cm.) and 2.1°C (at 10cm.).

The mean daily actual sunshine duration and wind speed at 1.5 m. height were higher than the corresponding values of February 1972 by 0.4 hour and 0.5 m./sec. respectively.

TAHRIR — FEBRUARY 1973

This month was rather normal as regards the mean daily air temperature and relative humidity. No rain was reported the whole month except 0.1 mm. on the 7th, while the nonal rainfall amount for this month is 6.7 mm.

The month was characterized by three short warm spells on the 4th, (12th, 13th), (26th-28th) and a pronounced heat wave on the (16th, 17th) yielding the highest maximum air temperature for the month (33.9°C) on the 17th together with the lowest relative humidity (12%). In the rest of the month weather was generally mild.

The highest maximum soil temperatures were lower than last February at 2, 5 cm. depths by 2.0°C and 1.6°C respectively ; and were higher than last February at other depths between 10 and 100 cm. with departures between 1.1°C (at 50 cm.) and 0.3°C (at both 10, 100 cm.). The lowest minimum soil temperatures were higher than last February at all depths, except at 5 cm. where its value was the same as last February and at 100 cm. where its value was lower by 0.2°C ; the departures varied between 1.5°C (at 2 cm.) and 0.1°C (at both 10, 20 cm.).

The mean daily actual sunshine duration was higher than average by 0.7 hour. The mean daily wind speed at 1.5 met. height and pan evaporation showed insignificant departures from the corresponding average values.

BAHTIM FEBRUARY 1973

For the month as a whole the mean daily air temperature was above average and the mean daily relative humidity was slightly below average. Themonth was rainless apart from 0.3 mm. on the 8th and trace on the 17th, 19th and 21st.

The month was characterized by five short warm spells on the 4th, 13th, (15th-18th), 21st and (26th-28th). The third warm spell was the most pronounced yielding both the highest maximum air temperature for the month (33.1°C), the highest minimum air temperature (12.6°C) and the lowest relative humidity (12%) on the 17th.

Three light cold spells were experienced in the periods (1st and 2nd), (5th-10th) and (23rd and 24th). The second cold spell was the most pronounced yielding the lowest maximum air temperature for the month (17.8°C) on the 7th. It is worthy to mention that minmum air temperature at 5 cm. above dry and grass fields fell below 0.C on 3 and 5 days respectively during this month. The values of these minima and their dates of occurrence are given in the following :

Date	2	3	4		
Min. air temp. (°C) at 5 cm.above dry field	—1.0	— 0.6	— 0.7		
Date	1	2	3	4	11
Min. air temp. (°C) at 5 cm.above grass field	—0.1	—2.0	—0.5	1.1	—0.6

The highest maximum soil temperatures were lower than the corresponding values of last February at depths between 2 and 10 cm. with departures between 2.4°C (at 2 cm.) and 0.2°C (at 10 cm.), and were the same as last February at deeper depths between 20 and 100 cm. The lowest minimum soil temperatures were higher than last February at depths between 2 and 20 cm. with departures between 2.0°C (at 5 cm.) and 0.3°C (at 20 cm.), and were lower than last February at 50 and 100 cm. by only 0.2°C and 0.1°C respectively.

The mean daily wind speed at 1.5 m. height was the same as average. The mean daily actual sunshine duration and pan evaporation were lower than average by 0.3 hour and 0.41 mm.

KHARGA FEBRUARY 1973

This month was warmer and less humid than normal. The month was characterized by four short warm spells in the periods (3rd and 4th), 6 th ; (12th and 13th), (27th and 28th) and an excessive heat wave which prevailed from the 15th till the 21st yielding the highest maximum air temperature for the month (42.3°C) on the 21st and highest minimum air temperature (16.6°C) on the 22nd. In the rest of the month mild weather was experienced. Minimum air temperature at 5 cm. above soil fell below 0.C only on the 1st when its value was —0.2°C.

The highest maximum soil temperatures were higher than the corresponding values of February 1972 at all depths with marked departures ranging between 8.1°C (at 10 cm.) and 1.5°C (at 100 cm.). The lowest minimum soil temperatures were higher than the corresponding values of February 1972 at all depths except at 10 cm. where its value was lower by 0.4°C ; the departures varied between 2.5°C (at 2 cm.) and 0.2°C (at 20 cm.).

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaporation showed insignificant departures from the corresponding average values.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

FEBRUARY — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values									
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	−5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Mersa Matruh. . .	19.8	9.3	14.5	12.5	16.6	24.0	24.0	24.0	21.9	10.5	1.8	0.2	0.1	0.0	0.0	0.0
Tahrir	23.2	6.9	14.5	11.1	18.0	24.0	24.0	23.7	17.2	10.8	3.2	1.1	0.3	0.0	0.0	0.0
Bahtim	22.8	6.2	14.1	10.5	17.7	24.0	24.0	22.5	16.8	10.4	3.9	1.0	0.2	0.0	0.0	0.0
Kharga.	27.1	9.2	18.3	14.9	21.6	24.0	24.0	23.6	21.3	16.4	9.2	3.5	1.1	0.3	0.1	0.0

Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS.

FEBRUARY— 1973

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Mersa Matruh . . .	31.2	17	16.8	23	13.5	16.17	5.5	19	2.2	19	—	—
Tahrir	33.9	17	19.0	2	13.5	21	3.6	3	2.0	3	1.2	27
Bahtim.	33.1	17	17.8	7	12.6	17	1.2	3	−1.0	2	−2.0	2
Kharga	42.3	21	21.2	8.9	16.6	22	2.8	2	−0.2	1	—	—

Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL

FEBRUARY — 1973

STATION	(Solar+Sky) Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day	Date
M.Matruh	—	229.9	309.9	74	67	52	26	25	8.1	8.4	14.5	17	3.9	26	5.9	—	0.3	0.3	5
Tahrir. .	370.3	235.3	311.1	76	64	40	12	17	7.4	7.2	12.5	21	1.8	28	5.2	5 31	0.1	0.1	7
Bahtim .	371.1	217.6	311.7	70	61	39	12	17	6.8	7.0	11.9	21	3.2	28	6.0	5.45	0.3	0.3	8
Kharga .	474.8	274.8	317.0	87	33	20	6	21	4.8	4.8	9.5	22	2.6	26	9.5	9.13	0.0	0.0	—

Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms) IN DIFFERENT FIELDS

FEBRUARY — 1973

Station	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
Mersa Matruh.	H	25.3	23.8	21.0	18.4	17.2	17.4	19.6	—	—	—	—	—	—	—	—	—
	L	7.8	8.4	10.4	12.6	14.5	16.0	18.8	—	—	—	—	—	—	—	—	—
Tahrir	H	32.3	27.2	25.0	21.4	19.4	18.2	19.0	20.4	21.6	21.5	21.6	19.1	16.1	16.0	17.2	—
	L	7.9	8.2	9.5	11.6	14.1	16.0	18.4	20.2	8.2	8.4	8.8	10.4	12.6	14.2	16.4	—
Bahtim	H	32.6	26.2	23.2	19.7	19.1	19.6	22.5	24.3	20.0	18.3	16.3	15.9	15.1	15.8	18,8	—
	L	5.9	8.2	11.8	15.2	17.4	19.1	21.8	23.4	7.1	8.2	10-1	11.5	13.4	15.2	18.2	—
Kharga . . .	H	44.6	38.1	33.9	27.6	24.4	24.2	25.6	27.7	—	—	—	—	—	—	—	—
	L	5.9	8.7	10.9	16.0	20.2	22.3	25.0	27.0	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

FEBRUARY — 1973

Station	Wind Speed m/sec at $1^1/_2$ metres			Days with surface wind speed at 10 metres							Max. Gust (knots at 10 meters)	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	30 knots	≥35 knots	≥40 knots	value (knots)	Date
Mersa Matruh.	4.5	3.4	5.4	28	24	21	15	10	3	0	43	15
Tahrir	2.0	1.2	2.8	26	17	11	3	0	0	0	35	23
Bahtim	2.2	1.3	3.1	24	20	13	4	0	0	0	36	17
Kharga	2.8	2.1	3.5	19	14	4	0	0	0	0	28	18

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MONTHLY WEATHER REPORT

VOLUME 16 NUMBER

MARCH, 1973

U.D.C. 551. 506.1 (62)

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues serveral reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.

THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 16 NUMBER 3

MARCH, 1973

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on the tables please refer to Volume 16, Number 1 (January 1973).

GENERAL SUMMARY OF WEATHER CONDITIONS

MARCH 1973

A cold wave in the fitrst 10 days , followed by three short heat waves of the khamsin type.

PRESSURE DISTRIBUTION

A trough of low pressure crossed the northern parts on the 2*nd*. A Mediterranean depression moving eastwards traversed the East Mediterranean area on the 6*th*.

Afterwards, weather was mainly affected by three desert khamsin depressions which originated over Algiers. The first two of these depressions moved northeastwards and corssed the East Mediterranean on the 14*th* & 19*th*. The third moved towards the Western Desert on the 28*th*, then it proceeded northeastwards to the East Mediterranean on the 29*th*.

In the rear of these depressions, high pressure established over Egypt and NE Africa.

SURFACE WIND

Winds were generally light to moderate, and blew mostly from W & NW in north of the country and from N & NW in south.

Fresh to strong Wly & SWly winds blew during several days in association with khamsin waves.

Gales were reported at Sidi Barrani on the 2*nd* & 18*th*, at Mersa Matruh on the 2*nd*, at Wadi El Natron on the 2*nd*, 4th & 6*th*.

TEMPERATURE

A pronounced cold wave prevailed during the first 10 days yielding marked subnormal maximum and minimum air temperatures.

Records for lowest maximum air temperatures were reported : (13.4°C) at Tanta on the 3*rd*, (19.3°C) at Aswan on the 3*rd*.

During the rest of the month, temperature was changeable and three short khamsin heat waves occurred; their peaks were on the 13*th*, 18*th* and 28*th*. The first of these heat waves was the most excessive in Lower Egypt, while the third was the most excessive in Upper Egypt.

The highest & lowest maximum air temperatures reported were : 41.0°C at Kom Ombo on the 29*th* and 12.6°C at Mersa Matruh on the 2*nd* respectively .

The highest and lowest minimum air temperatures reported were 22.0°C at Aswan on the 30*th* and - 0.8°C at Dakhla on the 4*th* respectively.

PRECIPITATION

Precipitation was confined to the first week during which light rain in general fell over the Mediterranean district and Lower Egypt.

Heavy rain associated with thunderstorms and local hail occurred round the 2*nd* and 5*th* at few places in the Mediterranean district where its monthly amounts exceeded normal.

The highest monthly rainfall reported was 37.2 mm atSidi Barrani.

The highest daily rainfall reported was 19.0 mm. at Balteam on the 2*nd*.

OTHER WEATHER PHENOMENA

Scattered rising sand and local sandstorms were reported in association with or after the passage of khamsin waves.

The frequency of occurrence of rising sand was rather high in some places in the Western Desert, Upper Egypt and Red Sea districts.

Early morning mist developed during few days in some places in Delta, Cairo and Middle Egypt.

Cairo, April 1975

Chairman (M. F. TAHA)
Board of Directors

Table A 1.–MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURNOITE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

MARCH 1973

Station	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation (mms.)
			Maximum		Minimum			Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F.Normal or Average	(B) Mean	D.F.Normal or Average	$\frac{A+B}{2}$	Mean	D.F.Normal or Average	Mean	D.F.Normal or Average	Mean	D.F.Normal or Average	Total Actual	Total Possible	%	Mean
Sallum	1017.0	+2.0	21.0	−0.4	11.2	0.0	16.1	15.5	+0.2	16.8	−0.8	72	−2	—	—	—	7.6
Mersa Matruh(A)	1017.8	+2.3	19.9	−0.6	10.2	+0.1	15.1	15.1	0.0	11.1	−0.4	58	−4	236.8	371.4	64	6.5
Alexandria. (A)	1018.0	+2.5	20.3	−1.0	9.5	−1.7	14.9	14.7	−1.2	11.4	−0.9	63	−2	259.3	371.7	69	4.4
Port Said. (A)	1016.8	+1.6	20.8	+0.5	12.1	−1.3	16.5	15.7	−0.8	12.0	−1.2	62	−5	283.2	371.7	76	5.0
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1017.9	+2.0	22.1	−1.7	7.3	−1.1	14.7	14.1	−1.6	10.4	−1.4	60	0	305.7	371.8	82	4.0
Cairo. (A)	1017.4	+2.2	23.2	−0.7	11.1	−0.4	17.2	17.0	−0.5	11.1	−1.0	44	−5	—	—	—	11.7
Fayoum.	—	—	25.1	−0.2	8.4	−1.5	16.8	16.4	−1.3	11.2	−0.8	49	+3	—	—	—	5.5
Minya. (A)	1017.0	+1.6	25.2	−0.6	7.3	−0.6	16.3	16.3	−0.3	10.7	−0.4	45	−2	310.6	372.0	83	9.7
Assyout. (A)	1015.1	+0.3	26.0	−0.5	9.6	−1.1	17.8	17.4	−1.2	10.4	−0.6	35	+2	—	—	—	11.2
Luxor. (A)	1014.7	+1.3	29.9	+0.5	10.5	−0.3	20.2	20.0	−0.2	11.8	−0.5	31	−3	—	—	—	8.9
Aswan. (A)	1014.2	+1.1	29.9	−0.5	13.0	+0.4	21.5	21.4	−0.5	10.8	−0.4	17	0	—	—	—	17.4
Siwa	1017.7	+2.3	24.8	−0.3	8.3	−0.2	16.6	16.4	−0.9	9.6	−0.8	35	−2	259.0	372.1	69	9.3
Bahariya	1017.9	+2.6	24.6	−1.0	9.1	+0.1	16.9	17.0	−0.9	9.7	−0.8	32	−3	—	—	—	8.0
Farafra.	1018.7	+2.1	25.6	−0.9	8.4	−0.4	17.0	17.1	−0.7	9.2	−0.5	27	−2	—	—	—	10.8
Dakhla.	1017.6	+2.6	27.1	−0.7	7.2	−1.9	17.2	17.1	−1.1	8.9	−1.4	25	0	—	—	—	12.5
Kharga.	1016.1	+2.1	28.3	−0.2	11.6	+0.6	20.0	20.4	+0.4	10.9	0.0	22	−7	320.0	372.9	86	11.3
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada.	1015.3	+1.9	24.5	+0.9	13.3	+0.8	18.9	18.9	0.0	14.5	+1.3	59	+10	312.5	372.4	83	10.4
Quseir.	1015.6	+1.5	24.2	−0.5	16.3	−0.1	20.3	20.4	−0.2	13.6	−0.6	42	−4	—	—	—	11.2

Table A 2.—MAXIMUM & MINIMUM AIR TEMPERATURE

MARCH — 1973

Station	Maximum Temperature									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	Ns. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Sallum	31.6	12	12.7	2	7	2	0	0	0	10.7	—	18.9	12	6.1	3	13	0	0	0
Mersa Matruh . (A)	32.2	13	12.6	2	4	2	0	0	0	8.5	—	20.3	13	5.2	8	14	0	0	0
Alexandria . . . (A)	30.2	13	14.2	2	3	1	0	0	0	8.0	—	13.5	29	5.0	4,11	16	0	0	0
Port Said . . . (A)	28.2	14	13.7	3	4	0	0	0	0	11.5	—	16.2	29	6.3	3	7	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	32,0	13	13.4	3	7	1	0	0	0	—	—	12.7	29	3.0	8,9	25	7	0	0
Cairo . . . . . (A)	33.2	13	15.4	3	12	2	0	0	0	—	—	18.0	13	6.3	3,5	12	0	0	0
Fayoum	31.8	13	17.0	3	14	4	0	0	0	6.0	—	15.0	29	2.4	4	19	5	0	0
Minya . . . . . (A)	33.8	28	17.4	3	13	5	0	0	0	5.8	—	18.0	29	1.3	4	22	8	0	0
Assyout . . . . (A)	35.2	19	16.3	3	16	8	1	0	0	6.9	—	18.5	29	3.8	4	17	3	0	0
Luxor . . . . . (A)	38.1	27	20.0	3	25	15	7	0	0	3.4	—	18.2	28	3.2	6	15	2	0	0
Aswan . . . . . (A)	39.3	29	19.3	3	25	14	5	0	0	0.0	—	22.0	30	5.6	4	7	0	0	0
Siwa	34.4	28	15.9	2	14	8	0	0	0	7.8	—	17.2	28	0.3	4	20	5	0	0
Bahariya	33.4	28	16.2	3	13	6	0	0	0	8.3	—	17.4	28	1.5	4	19	5	0	0
Farafra	37.0	28	17.8	3	15	8	1	0	0	7.8	—	17.6	29	0.3	4	21	7	0	0
Dakhla	39.3	28	17.0	3	18	11	3	0	0	7.0	—	19.7	29	—0.8	4	24	11	1	0
Kharga	38.6	28	18.8	3	21	12	4	0	0	9.9	—	21.0	28	3.2	6	19	2	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	30.0	26	17.4	3	14	0	0	0	0	—	—	19.9	27	7.5	6	5	0	0	0
Quseir	29.4	29	19.0	3	11	0	0	0	0	20.6	—	20.6	31	12.0	4,6	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

MARCH — 1973

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	Dev. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	3.3	2.5	3.6	2.1	3.0	7.3	— 2.5	5.3	1	0	3	2	1	0	0	0
Mersa Matruh (A)	1.7	3.8	4.1	2.7	3.0	19.3	+ 7.6	7.9	2	0	5	4	2	0	0	0
Alexandria (A)	2.8	3.5	4.2	3.3	3.4	16.5	+ 4.1	11.4	2	0	4	3	1	1	0	0
Port Said (A)	1.6	2.1	2.0	1.2	1.6	10.0	+ 1.5	5.0	2	0	4	2	1	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.8	2.5	3.5	1.3	2.0	2.9	— 1.8	2.3	2	0	4	1	0	0	0	0
Cairo (A)	1.3	2.0	2.5	1.2	1.9	0.0	— 2.4	0.0	—	0	0	0	0	0	0	0
Fayoum	—	1.2	2.5	1.1	—	0.0	— 1.4	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.7	1.6	2.1	0.9	1.3	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.4	0.9	1.4	0.9	0.9	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	1.0	1.5	1.6	1.7	1.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.7	1.7	1.5	1.3	1.3	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	2.9	2.2	3.1	2.8	2.8	0.3	+ 0.1	0.3	2	0	1	0	0	0	0	0
Bahariya	0.5	1.4	1.9	1.4	1.2	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.9	1.5	0.9	—	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Dakhla	0.1	0.4	1.1	0.7	0.5	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.7	1.0	1.0	1.3	1.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.8	1.7	1.5	1.1	1.4	0.0	— 0.4	0.0	—	0	0	0	0	0	0	0
Quseir	0.8	1.5	1.6	1.3	1.3	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

MARCH — 1973

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 Metres	Fog Vis < 1000 metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice Pellets	Hail											
Sallum	3	0	0	0	0	0	0	0	0	0	3	1	0	10	0
Mersa Matruh . . . (A)	5	0	0	0	0	0	0	1	1	0	8	2	1	11	3
Alexandira . . . . (A)	4	0	0	0	0	2	0	3	1	0	2	0	0	8	4
Port Said . . . . (A)	4	1	0	0	0	2	0	0	0	0	4	0	0	21	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	4	0	0	0	0	0	4	0	0	0	2	0	0	19	0
Cairo . . . . . (A)	0	0	0	0	0	0	5	1	11	1	9	0	0	17	1
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya . . . . . (A)	0	0	0	0	0	0	4	0	6	0	6	0	0	23	0
Assyout. . . . . (A)	0	0	0	0	0	0	0	0	2	0	4	0	0	25	0
Luxor . . . . . (A)	0	0	0	0	0	0	0	0	20	0	8	1	0	23	0
Aswan . . . . . (A)	0	0	0	0	0	0	0	0	12	0	14	2	0	23	0
Siwa	1	0	0	0	0	0	0	0	3	0	12	1	0	11	1
Bahariya	0	0	0	0	0	0	0	0	0	0	3	0	0	23	0
Farafra	0	0	0	0	0	0	0	0	2	0	5	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	1	0	8	0	0	28	0
Kharga	0	0	0	0	0	0	0	0	0	0	6	0	0	24	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	16	1	0	23	1
Quseir	0	0	0	0	0	0	0	0	0	0	3	0	0	23	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

MARCH — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	3	3	0	1—10	6	25	63	85	61	12	13	14	29	64	78	69	519
				11—27	1	4	7	4	3	3	9	27	27	34	67	33	219
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**7**	**29**	**70**	**89**	**64**	**15**	**22**	**41**	**56**	**98**	**145**	**102**	**738**
Mersa Matruh	16	0	0	1—10	36	34	27	39	30	28	18	17	34	33	19	31	346
				11—27	1	14	18	32	23	14	42	33	21	48	57	56	359
				28—47	0	0	0	0	0	2	8	7	0	1	3	2	23
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**37**	**48**	**45**	**71**	**53**	**44**	**68**	**57**	**55**	**82**	**79**	**89**	**728**
Alexandria	0	0	0	1—10	70	67	36	17	46	32	33	37	8	3	23	53	425
				11—27	15	21	7	30	8	3	2	5	11	15	92	110	319
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				>48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**85**	**88**	**43**	**47**	**54**	**35**	**35**	**42**	**19**	**18**	**115**	**163**	**744**
Tanta	28	0	0	1—10	78	93	55	42	25	21	49	29	67	57	62	50	628
				11—27	1	0	4	7	4	2	2	2	8	11	26	21	88
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				>48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**79**	**93**	**59**	**49**	**29**	**23**	**51**	**31**	**75**	**68**	**88**	**71**	**716**
Cairo	92	1	0	1—10	43	81	42	34	12	13	11	6	14	28	31	44	359
				11—27	23	68	15	22	10	31	5	12	28	40	24	14	292
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**66**	**149**	**57**	**56**	**22**	**44**	**16**	**18**	**42**	**68**	**55**	**58**	**651**
Fayoum	3	6	11	1—10	182	235	27	10	5	17	22	42	30	33	40	48	691
				11—27	2	18	4	0	0	0	0	1	3	5	0	0	33
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**184**	**253**	**31**	**10**	**5**	**17**	**22**	**43**	**33**	**38**	**40**	**48**	**724**
Minya	6	0	0	1—10	232	56	12	2	3	26	42	14	11	17	18	46	479
				11—27	137	50	6	1	0	0	2	2	0	6	22	33	259
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				>48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**369**	**106**	**18**	**3**	**3**	**26**	**44**	**16**	**11**	**23**	**40**	**79**	**738**
Asyout(A)	42	0	0	1—10	60	34	6	8	9	18	18	7	0	64	119	165	508
				11—27	53	41	11	0	1	3	6	2	0	2	12	63	194
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**113**	**75**	**17**	**8**	**10**	**21**	**24**	**9**	**0**	**66**	**131**	**228**	**702**

Table A 5 (*contd.*)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

March — 1973

Station	Calm (hours)	Variable (ho	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Louxor	63	0	0	1—10	96	49	27	29	11	11	74	41	23	52	84	141	638
				11—27	0	0	3	1	0	0	0	0	0	1	20	18	43
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**96**	**49**	**30**	**30**	**11**	**11**	**74**	**41**	**23**	**53**	**104**	**159**	**681**
Aswan	7	0	0	1—10	183	120	8	2	4	2	4	5	3	3	12	95	441
				11—27	121	49	7	0	0	0	0	0	0	2	11	106	296
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**304**	**169**	**15**	**2**	**4**	**2**	**4**	**5**	**3**	**5**	**23**	**201**	**737**
Siwa	2	0	0	1—10	5	13	35	93	80	63	28	26	19	54	87	37	543
				11—27	0	0	1	17	27	20	9	5	3	16	56	17	171
				28—47	0	0	0	0	0	0	4	0	0	0	0	0	4
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**5**	**13**	**36**	**110**	**107**	**86**	**41**	**31**	**22**	**70**	**143**	**54**	**718**
Dakhla	7	30	0	1—10	81	19	47	32	22	27	37	36	34	42	76	123	626
				11—27	18	9	1	0	0	0	0	0	0	3	12	38	81
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**99**	**28**	**48**	**32**	**22**	**27**	**37**	**36**	**34**	**45**	**88**	**161**	**707**
Kharga	4	0	0	1—10	211	60	24	4	14	8	10	7	9	12	27	95	481
				11—27	174	38	0	0	0	0	0	0	0	0	7	40	259
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**385**	**98**	**24**	**4**	**14**	**8**	**10**	**7**	**9**	**12**	**34**	**135**	**740**
Hurghada	20	0	0	1—10	35	19	4	6	21	15	7	6	6	8	59	62	248
				11—27	129	8	0	0	0	0	0	0	1	0	108	182	428
				28—47	13	0	0	0	0	0	0	0	0	0	2	33	48
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**177**	**27**	**4**	**6**	**21**	**15**	**7**	**6**	**7**	**8**	**169**	**277**	**724**
Quseir	3	1	0	1—10	61	14	7	6	13	5	5	5	11	60	110	71	368
				11—27	204	24	0	0	0	0	0	0	0	9	39	96	372
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**265**	**38**	**7**	**6**	**13**	**5**	**5**	**5**	**11**	**69**	**149**	**167**	**740**

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

MARCH 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm.)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 0000 U.T.	Surface	26	*1016mb.	*1024mb.	*1007mb.	26	12.6	21.2	7.0	26	7.1
	1000	26	164	224	88	26	12.8	21.8	8.2	26	6.4
	850	26	1515	1575	1473	26	6.2	17.8	— 1.9	25	— 8.3
	700	25	3081	3159	2994	25	— 1.6	6.5	—12.3	24	—17.5
	600	24	4300	4396	4160	24	— 9.1	— 3.1	—20.0	24	—23.2
	500	24	5 87	5795	5490	24	—19.0	—13.2	—29.5	24	—32.3
	400	21	7319	7433	7063	21	—29.3	—25.0	—36.7	19	—44.3
	300	17	9208	9451	9033	17	—43.5	—36.5	—50.2	17	—57.0
	250	16	10513	10680	10254	16	—50.9	—44.7	—55.7	15	—62.6
	200	11	11989	12070	11827	11	—54.2	—50.2	—58.0	10	—65.3
	150	7	13830	13885	13750	7	—58.4	—56.0	—60.9	2	—75.1
	100	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	31	*1001mb.	*1008mb.	*989mb.	31	13.3	26.4	6.6	31	3.6
	1000	31	145	206	44	19	11.1	16.1	6.6	19	4.2
	850	31	1503	1540	1449	31	8.1	22.7	— 3.0	31	— 7.2
	700	30	3085	3138	2962	28	0.1	8.9	—12.1	28	—16.5
	600	30	4304	4378	4124	30	— 7.8	— 1.3	—19.4	29	—24.1
	500	30	5698	5796	5481	30	—16.8	—13.0	—25.0	29	—31.2
	400	30	7342	7468	7091	29	—27.8	—23.4	—34.8	29	—41.5
	300	30	9352	9519	9092	29	—41.4	—35.8	—50.2	29	—53.2
	250	29	10568	10765	10324	29	—48.0	—36.2	—54.0	29	—57.0
	200	27	12023	12225	11788	27	—53.9	—46.5	—60.2	26	—64.3
	150	25	13844	13985	13643	23	—60.6	—53.6	—65.8		—
	100	1	16252	—	—	1	—63.3	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 0000 U.T.	Surface	31	*992mb.	*1000mb.	*985mb.	31	16.8	28.2	9.6	31	— 2.8
	1000	31	126	193	61	2	10.5	10.5	10.5	2	— 1.7
	850	31	1514	1549	1474	31	15.3	24.3	3.5	31	— 6.7
	700	31	3137	3173	3081	31	7.2	12.2	2.5	31	—14.3
	600	30	4390	4424	4332	30	0.2	4.9	— 3.2	30	—19.3
	500	30	5827	5872	5765	30	— 9.2	— 6.4	—13.2	30	—29.5
	400	29	7519	7566	7427	29	—20,2	—17.0	—24.3	29	—34.8
	300	28	9599	9644	9517	28	—34.4	—29.6	—38.0	28	—45.2
	250	27	10851	10913	10765	27	—42.9	—38.0	—48.0	27	—52.9
	200	27	12325	12417	12230	27	—53.4	—49.1	—56.2	27	—62.6
	150	25	14129	14219	14037	25	—64.4	—60.5	—67.5	—	—
	100	5	16572	16614	16530	5	—68.3	—64.7	—72,2	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of case the element has been observed during the month.
* The atmospheric pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.(*contd.*)—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

MARCH — 1973

Station	Presure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 1200 UT	Surface	30	1016m.b.*	1025m.b.*	1008m.b.*	30	18.4	30.0	10.5	30	5.8
	1000	30	163	289	81	30	16.6	29.6	9.0	29	4.8
	850	30	1520	1567	1464	29	7.1	23.0	3.5	29	— 6.9
	700	30	3090	3155	2965	30	2.8	8.8	—14.0	30	—16.0
	600	30	4300	4412	4119	30	— 9.2	0.0	—21.3	30	—23.2
	500	30	5689	5837	5442	30	—18.5	—11.4	—29.4	29	—31.7
	400	28	7310	7507	7006	28	—29.7	—23.3	—37.3	28	—41.1
	300	23	9283	9542	8970	23	—43.5	—36.9	—48.5	22	—55.5
	250	21	10493	10820	10200	21	—49.5	—42.5	—57.1	17	—60.5
	200	13	11922	12122	11703	12	—51.9	—44.6	—62.3	9	—63.2
	150	12	13774	13922	13586	12	—56.1	—50.5	—64.9	5	—65.5
	100	9	16334	16526	16180	9	—63.6	—59.0	—66.0	—	—
	70	6	18548	18706	18395	6	—64.4	—60.5	—69.9	—	—
	60	4	19514	19650	19300	4	—62.8	—60.0	—65.9	—	—
	50	3	20697	20782	20632	3	—59.4	—58.5	—60.4	—	—
	40	2	22190	22280	22100	2	—56.4	—54.2	—58.5	—	—
	30	2	23958	24072	23843	2	—53.2	—49.0	—57.5	—	—
	20	1	26762	—	—	1	—42.8	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	31	1000m.b.*	1007m.b.*	992m.b.*	31	22.4	31.6	14.6	31	1.7
	1000	31	139	196	70	18	19.1	26.2	14.4	18	0.6
	850	31	1518	1555	1459	31	9.8	21.6	1.0	31	—8.3
	700	31	3105	3162	3004	31	1.4	10.9	—10.9	31	—18.2
	600	31	4330	4415	4193	31	— 6.2	0.0	—17.5	30	—21.8
	500	30	5734	5837	5574	30	—14.9	—10.8	—26.9	29	—33.1
	400	30	7389	7507	7126	30	—25.8	—20.8	—33.0	28	—42.7
	300	29	9417	9570	9136	27	—39.3	—32.9	—44.5	26	—51.8
	250	29	10546	10822	10394	28	—46.6	—39.5	—51.2	27	—60.3
	200	28	12103	12288	11893	27	—52.1	—45.6	—59.4	26	—65.7
	150	28	13938	14096	13763	27	—58.1	—49.7	—65.0	18	—69.5
	100	25	16467	16652	16303	25	—64.4	—54.9	—69.3	—	—
	70	22	18624	18718	18525	22	—66.5	—61.0	—72.4	—	—
	60	19	19582	19770	19490	19	—66.1	—59.1	—70.3	—	—
	50	19	20659	20749	20551	19	—64.4	—59.6	—69.4	—	—
	40	18	22121	22210	22030	18	—59.6	—56.3	—62.7	—	—
	30	16	23855	23971	23732	16	—54.9	—49.7	—59.9	—	—
	20	9	26552	26657	26482	9	—47.2	—42.9	—51.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	31	992m.b.*	1000m.b.*	984m.b.*	31	28.4	37.2	18.6	31	1.5
	1000	31	119	193	47	1	20.0	—	—	1	— 1.2
	850	31	1525	1558	1481	31	16.1	24.5	6.1	31	— 8.8
	700	30	3149	3184	3098	30	7.6	12.5	— 0.1	30	—16.5
	600	29	4405	4144	4335	29	0.7	5.8	— 1.7	29	—21.5
	500	29	5846	5918	5766	29	— 8.3	— 2.8	—10.7	29	—28.0
	400	29	7542	7624	7444	29	—19.5	—15.2	—22.7	29	—36.4
	300	28	9625	9712	9524	27	—33.0	—30.5	—36.2	27	—48.7
	250	28	10884	10976	10799	28	—42.0	—38.2	—45.5	28	—56.7
	200	28	12362	12459	12273	28	—52.8	—49.6	—54.9	28	—65.4
	150	28	14175	14300	14068	28	—63.1	—58.7	—67.5	—	—
	100	27	16627	16764	16479	26	—70.4	—65.4	—77.1	—	—
	70	25	18725	18861	18559	25	—72.2	—62.3	—78.4	—	—
	60	23	19673	19889	19506	23	—69.8	—62.9	—73.0	—	—
	50	23	20730	20922	20561	23	—65.6	—61.3	—70.4	—	—
	40	20	22197	22450	22020	20	—60.6	—51.2	—65.5	—	—
	30	18	23914	24154	23700	18	—54.0	—49.7	—60.4	—	—
	20	13	26617	26850	26471	13	—46.1	—41.1	—54.6	—	—
	10	—	—	—	—	—	—	—	—		

N — The number of cases the element has been observed during the month.

* The atmospheire pressure corrected to the elevation of the radiosonde station.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE; THE HIGHEST WIND SPEED IN THE UPPER AIR.

MARCH — 1973

	Station	Freezing level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gmb)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh.	2721 (24)	738 (24)	—12.4 (24)	4040	626	—12.8	1170	884	— 0.5	10562 (5)	257 (5)	—54.1 (5)	10960	237	—57.5	10390	248	—55.4	2580	748	260	56
	Helwan. . . .	2812 (31)	731 (31)	—13.1 (31)	4200	613	—19.2	1140	885	— 1.6	10623 (12)	250 (12)	—52.0 (12)	12640	181	—60.0	9120	298	—41.7	6660	443	240	150
	Aswan.	4415 (30)	599 (30)	—19.3 (20)	4860	570	—23.4	3940	633	—17.1	14010 (1)	153 (1)	—65.5 (1)	—	—	—	—	—	—	2960	720	226	47
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh.	2668 (30)	743 (30)	—13.2 (30)	4412	600	—11.8	940	909	— 6.6	11007 (12)	235 (12)	—54.9 (12)	13930	149	—65.0	9020	307	—44.8	10580	246	240	118
	Helwan. . . .	3191 (31)	703 (31)	—15.5 (30)	4382	600	—23.5	1610	840	— 9.6	13670 (21)	172 (21)	—60.0 (21)	18860	67	—69.6	6500	439	—34.4	8980	322	295	156
	Aswan.	4443 (29)	599 (29)	—22.2 (29)	5150	547	—30.2	2940	713	—20.2	17318 (24)	92 (24)	—71.6 (24)	19250	66	—75.2	14230	149	—64.6	12730	192	280	148

N = The number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

MERSA MATRUH (A) — MARCH 1973

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000 –360)° 345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344		Number of Calm winds	Total Number of Observations (T N)	Mean Scalar wind Speed (Knots)
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	1	10	0	—	0	—	2	9	3	11	1	12	2	8	1	22	1	7	7	16	3	10	1	2	4	26	10
	1000	1	1	1	6	2	9	2	15	0	—	2	14	1	17	1	16	1	28	3	16	2	13	1	32	0	17	15
	850	0	—	0	—	1	10	0	—	0	—	1	22	0	—	2	8	3	21	3	18	1	21	1	10	0	12	16
	700	0	—	0	—		—	0	—	0	—	0	—	0	—	0	—	0	—	1	51	0	—	0	—	0	1	51
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	2	16	5	10	2	10	2	16	0	—	2	21	1	4	1	20	3	15	2	16	5	18	5	12	0	30	14
	1000	3	17	3	8	3	9	3	15	0	—	0	—	0	—	1	12	3	16	2	23	3	20	3	12	0	24	15
	850	0	—	2	18	0	—	1	11	2	8	1	28	2	12	2	9	7	15	4	21	1	16	2	9	0	24	15
	700	0	—	1	30	0	—	2	14	0	—	1	7	0	—	4	30	5	32	5	24	0	—	1	22	0	19	26
	600	0	—	0	—	0	—	0	—	0	—	1	30	0	—	3	35	7	32	4	46	1	31	0	—	0	16	36
	500	1	49	1	32	0	—	0	—	0	—	0	—	0	—	2	35	6	46	3	51	1	44	0	—	0	14	45
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	74	3	59	5	73	0	—	0	—	0	10	69
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	75	1	58	0	—	0	—	0	3	69
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	100	0	—	0	—	0	—	0	2	100
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	94	0	—	0	—	—	—	0	1	94
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	94	0	—	0	—	—	—	0	1	94
	100	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = number of cases the wind has been observed for all directions during the month.

TN = The number of cases the element has been observed during the month.

Table B 3 *(contd.)*—**NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.**

HELWAN (A) — MARCH 1973

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000—360)°																						Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	7	5	9	11	3	14	6	7	1	9	2	4	0	—	0	—	1	10	0	—	0	—	0	—	2	31	8
	1000	5	9	6	16	3	15	2	13	0	—	0	—	0	—	0	—	2	14	0	—	1	14	0	—	0	19	13
	850	3	10	5	17	0	—	2	18	1	3	0	—	1	16	2	32	5	15	0	—	6	22	5	19	0	30	18
	700	3	21	1	36	0	—	0	—	0	—	1	15	0	—	2	31	7	37	6	42	5	47	1	45	0	26	41
	600	1	82	0	—	0	—	0	—	0	—	0	—	0	—	3	55	3	71	6	34	5	61	1	60	0	19	54
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	89	1	115	5	81	1	52	0	—	0	9	83
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	64	0	—	0	—	1	90	0	—	0	2	77
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	-	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T	Surface	6	9	7	11	1	6	0	—	1	4	0	—	1	8	0	—	0	—	9	10	2	17	3	8	1	31	9
	1000	4	16	5	14	1	17	0	—	0	—	0	—	1	10	0	—	0	—	2	14	2	14	3	15	0	18	15
	850	4	13	3	15	3	18	1	13	0	—	2	14	1	7	2	18	3	22	4	28	6	18	2	18	0	31	18
	700	0	—	1	21	0	—	0	—	0	—	1	22	0	—	2	50	5	38	5	58	10	33	6	34	0	30	39
	600	0	—	0	—	0	—	0	—	0	—	0	—	1	41	1	73	6	42	6	45	5	37	2	46	0	21	44
	500	0	—	0	—	0	—	0	—	0	—	0	—	1	47	0	—	3	82	4	85	8	49	0	—	0	16	64
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	88	1	89	4	67	0	—	0	7	76
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	67	0	—	0	—	0	1	67
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N. = The number of cases the wind has been observed from the range of directions during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3. (*contd.*)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A) — MARCH 1973

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000—360°)																								Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	24	10	4	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	11	1	18	1	31	10
	1000	1	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	11	0	—	0	2	10
	850	8	12	5	13	1	11	1	8	1	5	2	11	1	4	0	—	0	—	1	16	3	19	6	19	0	29	14
	700	1	12	0	—	0	—	0	—	0	—	0	—	1	21	0	—	1	25	4	24	4	16	4	21	0	15	20
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	0	—	0	—	0	—	0	1	17
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	17	14	8	10	1	8	0	—	0	—	0	—	2	4	0	—	1	5	0	—	0	—	2	18	0	31	12
	1000	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	16
	850	6	11	8	13	4	11	0	—	0	—	1	11	0	—	0	—	0	—	1	10	3	16	8	14	0	31	13
	700	4	18	1	15	0	—	1	12	0	—	0	—	0	—	1	15	4	39	7	22	6	24	5	16	0	29	22
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	45	9	33	6	28	2	14	0	25	31
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	55	13	47	2	28	0	—	0	24	48
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	62	6	52	1	55	0	—	0	13	57
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	82	6	92	0	—	0	—	0	8	89
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	106	1	100	0	—	0	5	105
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	121	0	—	0	—	0	2	121
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	70	0	—	0	—	0	—	0	1	70
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — MARCH 1973

This month was rather normal as regards the mean daily air temperature and relative humidity. The total monthly rainfall was 19.3 mm. against 11.7 mm. for normal.

Weather in the month was changeable in temperature. It was characterized by two cold waves in the periods (1st-9th) and (19th-26th) and two heat waves in the periods (11th-14th) and (16th-18th).

The first cold wave was the more excessive and was associated with the whole rainfall for the month. It yielded the lowest maximum air temperature for the month (12.6°C) together with the maximum daily rainfall (7.9 mm.) on the 2nd, and the lowest minimum air temperature (5.2°C) on the 8th.

The first heat wave was the more pronounced. It reached its peak on the 13th when the highest maximum air temperature for the month ((32.2°C), the highest minimum air temperature (20.3°C), the maximum daily pan evaporation (21.23 mm.) and the maximum mean daily wind speed (8.6 m./sec.) were reported.

The highest maximum soil temperatures were lower than the corresponding values of March 1972 at all depths except at 20 cm. where its value was higher by 0.2°C and at 50 cm. where its value was the same as March 1972 ; all the departures were slight and ranged between 0.1° and 0.6°C. The lowest minimum soil temperatures were lower than the corresponding values of March 1972 at all depths with departures between 3.6°C (at 2 cm.) and 0.8°C (at 50 cm.).

The mean daily actual sunshine duration was higher than the corresponding value of March 1972 by 0.4 hour. The mean daily wind speed at 1.5 met. and pan evaporation were lower than the corresponding values of March 1972 by 0.5m./sec. and 0.18 mm. respectively.

TAHRIR — MARCH 1973

For the month as a whole the mean daily air temperature was below normal and the mean daily relative humidity was rather normal. The month was rainless apart from 0.8 mm. on the 2nd and trace on the 6th, against 1.4 mm. for normal monthly rainfall.

Weather during the month was changeable in temperature. It was characterized by two cold spells in the periods (1st-9th) and (20th-24th) and two heat waves in the periods (11th-14th) and (17th-19th).

The first cold wave was the more excessive. It was associated with the lowest maximum air temperature for the month (16.1°C) on the 3rd and the lowest minimum air temperature (3.2°C) on the 8th.

The first heat wave was the more pronounced. It yielded both the highest maximum air temperature for the month (32.6°C) and the highest minimum air temperature (13.1°C) on the 13th, and the lowest relative humidity (15%) on the 12th.

The highest maximum soil temperatures were higher than the corresponding values of March 1972 at depths between 2 and 10 cm. with departures between 1.6°C (at 5 cm.) and 0.4°C (at 10 cm.); and were lower than last March at deeper depths between 20 and 100 cm. with small departures between 0.3° and 0.6°C. The lowest minimum soil temperatures were lower than the corresponding values of March 1972 at all depths between 2 and 100 cm. with departures ranging between 2.8°C (at 5 cm.) and 0.8°C (at 100 cm.).

The mean daily actual sunshine duration was higher than normal by 0.3 hour. The mean daily wind speed at 1.5 m. and pan evaporation were lower than normal by 0.6 m./sec. and 1.75 mm. respectively.

BAHTIM — MARCH 1973

For the month as a whole the mean daily air temperature and relative humidity were slightly below average. The month was rainless apart from trace on the 5th, against 2.8 mm. for average monthly rainfall.

The month was characterized by three cold spells in the periods (1st-10th), (15th and 16th), (20th-24th), and two heat waves in the periods (12th-14th) and (17th-19th).

The first heat wave was the more pronounced yielding the highest maximum air temperature for the month (33.7°C) on the 13th

The first cold wave was the most excessive. It was prolonged and yielded the lowest maximum air temperature for the month (16.3°C) on the 3rd, and the lowest minimum air temperature (1.6°C) on the 4th and 5th.

It is worthy of mention that minimum air temperature at 5 cm. above the dry and grass fields fell below 0°C in 6 and 11 days respectively during this month. The values of these minima and their dates of occurrence are given in the following.

Date	4	5	6	8	9	24
Minimum air temp. (°C) at 5 cm. above dry field	—3.0	—3.0	—0.4	—3.5	—3.0	—0.8
Date	4	5	6	8	9	
Minimum air temp. (°C) at 5 cm. above grass field	—3.0	—2.9	—1.2	—3.5	—3.0	
Date	10	16	17	18	22	24
Minimum air temp. (°C) at 5 cm. above grass field	—0.4	—0.8	—0.6	—0.2	—0.4	—1.6

The highest maximum soil temperatures were higher than the corresponding values of last March at all depths except at 100 cm where its value was the same as last March; the departures varied between 6.8°C (at 2 cm.) and 0.1°C (at 50 cm.). The lowest minimum soil temperatures were lower than the corresponding values of last March at all depths with departures between 3.0°C (at 2cm.) and 0.1°C (at 100 cm.).

The mean daily actual sunshine duration was higher than average by 0.9 hour. The mean daily wind speed at 1.5 m. and pan evaporation were lower than average by 0.4 m./sec. and 0.08 mm. respectively.

KHARGA — MARCH 1973

This month was rather normal as regards the mean daily air temperature and relative humidity.

Weather during the month was changeable in temperature. It was characterized by three cold spells in the periods (2nd -9th), (15th-17th), (20th-24th) and three heat waves in the periods (12th-14th), (18th & 19th), (26th-30th).

The first cold wave was the most pronounced yielding the lowest maximum air temperature for the month (18.8°C) on the 3rd and the lowest minimum air temperature (3.2°C) on the 6th.

The last heat wave was the most excessive yielding both the highest maximum air temperature for the month (38.6°C) and the higest minimum air temperature (21.0°C) on the 28th.

The highest maximum soil temperatures were higher than the corresponding values of last March at all depths with departures between 3.3°C (at 10cm.) and 0.7°C (at 100 cm). The lowest minimum soil temperatures were lower than the corresponding values of last March at all depths except at 100 cm. where its values was higher by 0.2°C; the departures varied between 3.5°C (at 10 cm) and 0.8°C (at 50 cm.).

The mean daily actual sunshine duration was lower than normal by 0.2 hour. The mean daily wind speed at 1.5 m. and pan evaporation were higher than normal by 0.3 m./sec. and 0.50 mm. respectively.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

MARCH — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	—5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
M. Matruh . . .	19.9	10.2	15.1	13.2	17.0	24.0	24.0	21.0	21.3	10.9	2.6	1.0	0.2	0.0	0.0	0.0
Tahrir.	23.7	7.2	14.8	10.9	18.6	24.0	24.0	23.1	17.8	11.0	4.5	1.1	0.2	0.0	0.0	0.0
Bahtim..	22.9	6.5	14.5	10.4	18.5	24.0	24.0	23.0	17.0	10.6	4.5	1.2	0.2	0.0	0.0	0.0
Kharga.	23.3	11.6	20.4	17.0	23.8	24.0	24.0	23.9	22.4	18.7	12.0	6.1	2.6	0.6	0.0	0.0

Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS.

MARCH — 1973

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh	32.2	13	12.6	2	20.3	13	5.2	8	2.5	8,9	—	—
Tahrir	32.6	13	16.1	3	13.1	13	3.2	8	1.4	8	0.0	8,9
Bahtim	33.7	13	16.3	3	12.4	29	1.6	4,5	-3.5	8	—	—
Kharga.	38.6	28	18.8	3	21.0	28	3.2	6	1.2	6	—	—

Table C 3.—(SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL

MARCH — 1973

STATION	(Solar+Sky) Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. fall in one day	Date
M. Matruh . .	—	236.8	371.4	64	65	53	20	13	8.2	8.4	16.2	12	4.5	14	6.5	6.54	19.3	7.9	2
Tahrir.	467.0	283.5	371.9	76	63	40	15	12	7.6	7.5	11.5	29	4.1	14	4.6	5.68	0.8	0.8	2
Bahtim.. . . .	490.7	284.0	371.9	76	61	37	13	18	7.2	7.0	12.3	29	2.4	29	6.4	6.30	Tr.	Tr.	5
Kharga.. . . .	583.5	320.0	372.9	86	31	19	9	19	5.3	5.2	9.2	28	2.1	14	11.3	12.49	0.0	0.0	—

Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms) IN DIFFERENT FIELDS

MARCH — 1973

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
M. Matruh	H	29.3	27.5	24.0	21.0	19.0	18.2	19.2	—	—	—	—	—	—	—	—	—
	L	6.3	6.6	8.4	11.2	15.0	15.8	18.2	—	—	—	—	—	—	—	—	—
Tahrir. . .	H	39.7	34.2	29.2	24.7	21.6	20.2	20.1	20.7	26.6	24.6	23.4	20.3	18.6	17.7	18.2	—
	L	8.7	8.6	9.7	12.7	15.2	17.2	18.9	20.3	9.2	9.4	9.6	11.2	13.0	14.9	16.6	—
Bahtim . .	H	43.4	34.4	27.9	22.9	21.2	20.6	21.8	23.3	26.2	22.8	20.4	18.8	17.0	16.7	18.2	—
	L	8.1	8.7	12.6	16.5	18.4	19.5	21.6	22.7	8.1	8.7	10.8	12.1	14.3	15.7	18.1	—
Kharga. . .	H	49.2	42.0	36.5	31.0	26.7	25.0	25.2	27.0	—	—	—	—	—	—	—	—
	L	6.5	10.0	12.0	17.4	21.5	23.0	25.0	26.5	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

MARCH — 1973

STATION	Wind Speed m/sec at $1^1/_2$ metres			Days with surface wind speed at 10 metres							Max. Gust (knots) at 10 metres	
	Mean of the dry	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	Value (knots)	Date
M. Matruh	4.3	3.4	5.2	31	29	19	14	8	6	2	60	2
Tahrir.	2.1	1.3	2.8	29	13	10	3	1	0	0	44	3
Bahtim.	2.2	1.3	3.0	29	18	9	2	0	0	0	34	1
Kharga.	3.7	2.8	4.5	29	21	10	1	0	0	0	31	31

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THE APAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 16 NUMBER 4

APRIL, 1973

U.D.C. 551, 506.1 (62)

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues serveral reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.

THE ARAB REPUBLIC OF EGYPT

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

APRIL 1973

Generally mild at the northern coast, changeable otherwise with three short khamsin waves. Subnormal rainfall in general.

PRESSURE DISTRIBUTION

Three khamsin depressions moving northeastwards passed through north Egypt on the 2nd, 19th & 25th; the second of which was the deepest.

Two Mediterranean depressions and their associated troughs passed through East Mediterranean on the 6th & 13th.

Apart from these depressions, the surface pressure over Egypt was influenced by high pressure which established over the East Mediterranean and NE Africa.

SURFACE WIND

Light to modeate Nly and NWly winds prevailed most of this month in general. Fresh to strong Sly and SEly winds blew mainly in the north in advance of depressions.

Gales were reported at Sallum on the 24th, Cairo on the 19th and at kharga on the 6th.

TEMPERATURE

This month was intervened by three short khamsin heat waves during the periods (1st & 2nd), (17th — 19th) & 24th and a light heat wave on the 12th & 13th. The second khamsin heat wave was the most excessive yielding the highest maximum air temperature for the month in most places on the 19th.

Maximum and minimum air temperatures were subject to large variabilities during this month. During the heat waves thier departures from normal were slight in the Mediterranean district and generally modernate in the interior districts. Other wise maximum and minimum air temperatures should slight to moderate departures below normal.

The highest and lowest minimum air temperatures reported were :
44.3°C at Luxor on the 19th & 17.4°C at Balteam on the 7th. respectively.

The highest and lowest minimum air temperatures reported were :
26.0° at Aswan on the 6th & 5è7°C at Siwa on the 8th, respectively.

PRECIPITATION

Precipitation during this month was confined to light rain over few places round the 6th & 19th. Monthly rainfall amounts were genrally below normal.

The maximum daily rainfall was 2.1 mm at Bahteam on the 7th, which was also the maximum monthly rainfall.

Other Weather Phenomena,

Rising sand and/or sandstorms were reported in many scattered places over the whole region in association with or after the passage of cold fronts.

Chairman (M. F. TAHA.)

Board of Directors

Cairo, June 1975

SURFACE DATA

Table A1— MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION.

APRIL — 1973

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation (mms) Mean
			Maximum		Minimum			Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average	$\frac{A+B}{2}$	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	
Sallum	1014.9	+ 1.2	22.4	— 1.3	12.7	— 0.9	17.6	17.1	— 1.0	12.4	— 1.3	55	— 1	—	—	—	6.7
Mersa Matruh (A)	1015.1	+ 0.7	21.7	— 1.0	12.0	0.0	16.9	16.8	— 0.6	13.1	— 0.4	63	— 1	282.7	388.7	73	5.9
Alexandria (A)	1015.2	+ 1.0	22.8	— 1.2	12.6	— 0.9	17.7	17.3	— 1.0	13.8	— 0.8	66	+ 1	304.2	388.1	78	4.8
Port Said (A)	1013.6	— 0.1	22.5	— 0.1	14.6	— 1.4	18.6	17.8	— 1.0	14.6	— 0.9	68	— 1	307.0	388.1	79	5.0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1014.3	+ 0.8	25.6	— 2.1	9.7	— 1.2	17.7	17.1	— 1.7	13.2	— 0.6	62	+ 8	323.3	387.7	83	5.3
Cairo (A)	1014.1	+ 0.6	27.6	— 0.7	13.0	— 0.2	20.8	20.2	— 0.7	13.8	— 0.6	45	0	—	—	—	12.6
Fayoum	—	—	29.7	— 0.1	12.2	— 1.0	21.0	20.7	— 0.7	13.9	— 0.3	43	+ 2	—	—	—	7.6
Minya (A)	1013.1	+ 0.3	30.4	— 0.2	11.7	— 0.3	21.1	21.2	— 0.1	13.7	— 0.2	38	— 2	320.0	385.3	83	13.9
Assyout (A)	1011.5	— 0.7	31.4	— 0.3	14.3	— 0.7	22.9	22.7	— 0.9	13.2	— 0.2	27	+ 2	—	—	—	15.0
Luxor (A)	1010.8	+ 0.1	35.5	+ 0.9	16.4	+ 0.7	26.0	25.9	+ 0.2	15.1	+ 0.1	26	0	—	—	—	11.5
Aswan (A)	1010.4	+ 0.3	35.8	+ 0.8	18.9	+ 1.4	27.4	27.4	+ 0.7	14.3	+ 0.8	16	+ 3	—	—	—	22.3
Siwa	1014.2	+ 0.9	88.3	— 1.5	11.4	— 1.0	19.9	19.8	— 1.9	12.3	— 0.8	35	+ 3	317.8	386.0	82	11.2
Bahariya	1013.8	+ 1.0	29.3	— 0.8	13.0	+ 0.1	21.2	21.2	— 1.3	12.4	— 0.8	29	0	—	—	—	11.2
Farafra	1014.9	+ 0.9	30.4	— 0.8	12.7	— 0.6	21.6	21.6	— 0.9	12.0	— 0.5	24	— 1	—	—	—	13.6
Dakhla	1013.7	+ 1.3	31.9	— 0.8	13.0	— 0.9	22.5	22.9	— 0.7	12.0	— 1.1	19	— 1	—	—	—	17.2
Kharga	1012.1	+ 0.9	33.2	— 0.1	16.7	+ 1.1	25.0	25.5	+ 0.4	14.5	+ 1.2	24	+ 2	300.2	382.7	78	15.2
Ter	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1011.4	+ 0.4	27.6	+ 1.0	17.6	+ 1.4	22.6	22.9	+ 0.6	17.7	+ 2.0	58	+ 9	304.9	384.1	79	9.8
Quser	1011.1	— 0.1	27.0	— 0.1	20.0	— 0.6	23.5	23.6	+ 0.2	16.9	+ 0.3	46	0	—	—	—	10.9

Table A 2 — MAXIMUM AND MINIMUM AIR TEMPERATURE

APRIL — 1973

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					≥ 25	≥30	≥ 35	≥40	≥45							<10	<5	<0	<-5
Sallum	34.2	24	18.2	17	6	1	0	0	0	12.1	—	17.3	24	9.1	8	2	0	0	0
Mersa Matruh (A)	29.1	1	17.8	17	6	0	0	0	0	10.0	—	16.0	25	8.5	10	5	0	0	0
Alexandria (A)	30.2	1	19.4	7	7	1	0	0	0	10.7	—	15.9	2	8.2	9	1	0	0	0
Port Said (A)	30.0	19	20.2	7,8	2	0	0	0	0	14.3	—	16.7	2	11.5	8	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	31.0	24	21.2	7.8	18	3	0	0	0	—	—	13.0	19,25	6.2	11	17	0	0	0
Cairo (A)	39.7	19	22.1	7	22	5	2	0	0	—	—	18.2	20	11.5	9,10	0	0	0	0
Fayoum	38.8	19	22.6	7	27	13	2	0	0	10.4	—	16.5	20	8.4	8	3	0	0	0
Minya (A)	41.2	19	24.2	7	26	16	4	1	0	10.2	—	19.0	20	7.1	8	7	0	0	0
Assyout (A)	43.3	19	23.7	7	27	17	7	1	0	11.7	—	22.0	20	10.3	9	0	0	0	0
Luxor (A)	44.3	19	27.6	7	30	28	18	3	0	9.2	—	21.2	6	10 0	9	0	0	0	0
Aswan (A)	43.4	20	26.2	8	30	27	17	4	1	—	—	26.0	6	12.8	9	0	0	0	0
Siwa	38.7	19	20.6	7	25	6	4	0	0	10.7	—	18.4	19	5.7	8	8	0	0	0
Bahariya	41.6	19	21.3	7	27	12	2	1	0	11.9	—	19.5	19,20	8.0	8	2	0	0	0
Farafra	42.8	19	21.8	7	28	14	4	1	0	12.3	—	21.0	20	7.0	8	5	0	0	0
Dakhla	43.0	19	24.3	7	28	19	4	2	0	13.0	—	20.1	20	6.5	9	8	0	0	0
Kharga	43.8	19	26.0	8	30	24	11	2	0	15.1	—	25.4	20	9.3	24	1	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	32.0	25	23.8	5	24	6	0	0	0	—	—	20.8	20,21	14.2	9	0	0	0	0
Quseir	34.5	6	23.8	8	25	2	0	0	0	17.1	—	23.0	3	17.2	8	0	0	0	0

TABLE A 3.—SKY COVER AND RAINFALL

APRIL — 1973

Station	Mean Sky Cover Oct.					Rainfall mms.				Number of Days with Amount of Rain						
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day Amount	Max. Fall in one day Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	2.0	1.0	3.5	1.4	1.9	1.5	−1.1	0.8	19	0	3	0	0	0	0	0
Mersa Matruh (A)	2.1	3.1	2.7	2.0	2.6	0.0	−2.3	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	3.0	3.9	4.2	2.7	3.4	0.0	−2.9	0.0	—	1	0	0	0	0	0	0
Port Said (A)	1.0	1.5	2.0	1.4	1.6	Tr.	−2.7	Tr.	19	1	0	0	0	0	0	0
E. Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.3	1.9	2.9	0.7	1.4	0.0	−2.0	0.0	—	0	0	0	0	0	0	0
Cairo (A)	1.5	2.0	2.4	0.9	1.7	Tr.	−0.9	Tr.	5	1	0	0	0	0	0	0
Fayoum	—	1.3	1.8	1.0	1.5	Tr.	−0.6	Tr.	5	1	0	0	0	0	0	0
Minya (A)	1.0	1.5	1.6	1.7	1.5	0.0	−0.4	0.0	—	0	0	0	0	0	0	0
Asyout (A)	0.6	1.5	1.5	0.7	1.1	0.0	−0.1	0.0	—	0	0	0	0	0	0	0
Luxor (A)	1.8	2.2	2.3	1.9	2.1	Tr.	−0.0	Tr.	6	1	0	0	0	0	0	0
Aswan (A)	1.4	2.4	1.9	1.9	1.9	Tr.	−0.7	Tr.	6	1	0	0	0	0	0	0
Siwa	3.0	2.1	2.7	2.8	2.7	0.0	−1.0	0.0	—	0	0	0	0	0	0	0
Bahariya	1.3	1.2	1.6	1.5	1.3	0.0	−0.5	0.0	—	0	0	0	0	0	0	0
Farafra	—	1.2	1.0	1.4	1.3	0.0	−0.5	0.0	—	0	0	0	0	0	0	0
Dakhla	0.3	1.5	1.7	1.2	1.1	0.0	−0.2	0.0	—	0	0	0	0	0	0	0
Kharga	1.0	1.9	1.9	1.5	1.6	Tr.	−0.0	Tr.	6	1	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.7	2.3	2.4	1.5	2.0	0.6	+0.5	0.5	4	1	2	0	0	0	0	0
Quseir	1.3	2.2	2.5	1.5	1.9	1.5	+1.4	1.5	6	2	1	1	0	0	0	0

Table A 4.— DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

APRIL — 1973

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis <1000 Metres	Haze Vis ≥1000 Metres	Thick Haze Vis <1000 Metres	Dust or Sandrising Vis ≥1000 Metres	Dust or Sandstorm Vis <1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice. Pellets	Hail											
Sallum	3	0	0	0	0	0	0	0	0	0	1	0	1	15	0
Mersa Matruh (A)	0	0	0	0	0	0	0	0	0	0	9	0	0	15	2
Alexandria (A)	0	0	0	0	0	0	2	1	2	0	4	0	0	8	3
Port Said (A)	0	0	0	0	0	0	0	0	0	0	4	1	0	20	1
Al Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	10	0	2	0	1	2	0	21	0
Cairo (A)	0	0	0	0	0	0	4	0	8	0	8	1	1	19	1
Fayoum	0	0	0	0	0	0	0	1	0	0	1	0	0	—	—
Minya (A)	0	0	0	0	0	0	2	0	4	0	13	0	0	21	0
Assyout (A)	0	0	0	0	0	0	0	0	1	0	3	1	0	23	0
Luxor (A)	0	0	0	0	0	0	0	0	19	1	10	1	0	20	3
Aswan (A)	0	0	0	0	0	0	0	0	5	0	16	0	0	18	2
Siwa	0	0	0	0	0	0	0	0	3	0	11	1	0	10	0
Bahariya	0	0	0	0	0	0	0	0	0	0	2	1	0	20	1
Farafra	0	0	0	0	0	0	0	0	1	0	3	1	0	—	—
Dakhala	0	0	0	0	0	0	0	0	1	0	9	0	0	23	0
Kharga	0	0	0	0	0	0	0	0	0	0	7	0	0	21	1
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	2	0	0	0	0	0	0	0	0	0	9	0	0	18	2
Quseir	1	0	0	0	0	0	0	0	1	0	2	0	0	21	1

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

APRIL — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	14	3	0	1—10	22	51	57	102	42	9	9	9	13	35	66	91	506
				11—27	5	18	9	12	5	1	7	1	3	11	73	68	193
				28—47	0	0	0	0	0	0	0	0	0	0	2	2	4
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**27**	**69**	**66**	**114**	**47**	**10**	**16**	**10**	**16**	**46**	**121**	**161**	**703**
Mersa Matruh (A)	6	0	0	1—10	42	25	12	38	64	36	21	9	21	51	19	60	411
				11—27	13	9	20	47	13	3	11	1	12	14	60	94	299
				28—47	0	0	0	4	0	0	0	0	0	0	0	0	4
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All Speeds	**55**	**34**	**32**	**89**	**79**	**49**	**32**	**10**	**33**	**68**	**79**	**154**	**714**
Alexandria (A)	3	0	0	1—10	67	66	42	39	36	12	13	10	5	8	31	96	414
				11—27	37	44	16	15	5	1	0	3	6	20	77	79	303
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**104**	**110**	**58**	**45**	**41**	**13**	**13**	**13**	**9**	**28**	**108**	**175**	**717**
Tanta	19	0	0	1—10	46	93	79	31	23	3	15	29	44	37	73	89	582
				11—27	11	12	13	22	2	0	0	0	1	9	29	20	119
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**57**	**102**	**92**	**56**	**25**	**3**	**15**	**29**	**45**	**46**	**102**	**109**	**701**
Cairo (A)	65	0	0	1—10	58	100	21	19	20	7	4	13	17	9	24	68	350
				11—27	35	101	35	5	6	6	5	11	20	39	16	17	305
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**96**	**204**	**56**	**24**	**16**	**13**	**9**	**24**	**37**	**48**	**40**	**85**	**655**
Fayoum	0	9	5	1—10	188	264	26	2	12	8	10	18	32	20	34	31	645
				11—27	0	35	7	0	0	0	0	4	3	12	0	0	61
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**188**	**299**	**33**	**2**	**12**	**8**	**10**	**22**	**35**	**32**	**34**	**31**	**706**
Minya	2	0	0	1—10	193	66	8	5	3	11	27	8	6	17	17	36	397
				11—27	203	58	0	0	0	2	6	9	3	3	12	25	321
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**396**	**124**	**8**	**5**	**3**	**13**	**33**	**17**	**9**	**20**	**29**	**61**	**718**
Assyout (A)	19	0	0	1—10	37	10	5	6	5	13	11	13	10	90	185	86	471
				11—27	49	3	0	0	0	3	5	8	2	5	41	107	223
				28—47	0	0	0	0	0	0	1	6	0	0	0	0	7
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**86**	**13**	**5**	**6**	**5**	**16**	**17**	**27**	**12**	**95**	**226**	**193**	**701**
Luxor (A)	74	3	0	1—10	94	41	20	19	14	21	41	15	21	52	112	131	581
				11—27	11	0	0	2	1	0	7	0	0	1	16	24	62
				38—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**105**	**41**	**20**	**21**	**15**	**21**	**48**	**15**	**21**	**53**	**128**	**155**	**643**

Table A 5. (*contd.*) **– NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES**

APRIL – 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Aswan	31	1	0	1–10	142	59	20	7	4	17	15	8	5	6	4	94	384
				11–27	196	33	4	1	4	1	0	0	0	0	5	60	304
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**338**	**92**	**24**	**8**	**8**	**18**	**18**	**8**	**5**	**6**	**9**	**154**	**688**
Jiwa	28	0	0	1–10	13	56	70	109	80	37	25	13	4	29	50	38	524
				11–27	5	18	7	15	20	5	11	2	1	3	50	31	168
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**18**	**74**	**77**	**124**	**100**	**42**	**36**	**15**	**5**	**32**	**100**	**69**	**692**
Dakhla	2	14	0	1–10	104	48	27	45	21	15	24	17	23	37	67	135	563
				11–27	44	10	1	0	0	0	3	12	2	1	4	64	141
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**148**	**58**	**28**	**45**	**21**	**15**	**27**	**29**	**25**	**38**	**71**	**199**	**704**
Kharga	3	0	0	1–10	133	44	11	9	21	14	13	9	7	22	27	63	373
				11–27	254	28	0	0	0	0	5	7	1	0	2	47	344
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**387**	**72**	**11**	**9**	**21**	**14**	**18**	**16**	**8**	**22**	**29**	**110**	**717**
Hurghada	41	1	0	1–10	33	27	14	12	24	27	5	1	1	9	33	46	232
				11–27	125	9	0	0	1	6	0	0	0	0	41	253	435
				28–47	1	0	0	0	0	0	0	0	0	0	0	10	11
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**159**	**36**	**14**	**12**	**25**	**33**	**5**	**1**	**1**	**9**	**74**	**309**	**678**
Quseir	4	0	0	1–10	88	23	13	13	7	22	23	6	12	27	47	123	404
				11–27	232	17	0	0	0	0	0	1	4	0	1	57	312
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**320**	**40**	**13**	**13**	**7**	**22**	**23**	**7**	**16**	**27**	**48**	**180**	**716**

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHELY MEAN AND MONTHLY ABSOLUTE HIGHER AND LOWER VALUES OF ALTITUDE AIR TEMPERATURE AND DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

APRIL — 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Meras Matruh 0000 U.T.	Surface	30	1014m b.*	1020m.b.*	1006m.b.*	30	14.5	18.4	11.0	30	10.0
	1000	30	144	194	79	30	14.5	19.0	10.0	29	9.5
	850	30	1508	1555	1450	30	10.1	21.0	— 1.7	30	— 2.4
	700	30	3100	3165	2992	30	2.0	8.5	— 8.1	28	—14.1
	600	29	4328	4404	4172	29	— 5.5	— 0.2	—12.8	27	—20.0
	500	29	5729	5829	5532	29	—15.3	— 9.0	—21.1	27	—29.4
	400	28	7367	7514	7152	28	—27.3	—21.8	—35.1	27	—39.3
	300	27	9263	9567	9152	27	—42.2	—36.8	—53.2	24	—53.0
	250	25	10607	10799	10387	25	—50.1	—43.3	—61.1	21	—61.0
	200	22	12043	12249	11810	22	—55.4	—47.3	—63.0	12	—64.9
	150	11	13816	14049	13416	11	—57.6	—54.0	—60.6	5	—67.9
	100	3	16303	16573	16217	3	—60.2	—54.7	—64.2	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	28	998m.b.*	1004m.b.*	990m.b.*	28	15.6	22.8	11.2	28	7.8
	1000	28	120	182	53	9	13.7	16.0	11.3	9	8.7
	850	28	1494	1547	1450	27	11.6	20.2	4.2	27	— 4.8
	700	28	3099	3142	3022	28	4.1	12.4	— 2.9	28	—13.6
	600	28	4336	4408	4227	28	— 3.9	2.0	—10.6	28	—20.3
	500	28	5747	5848	5612	28	—13.7	— 8.1	—17.9	28	—29.1
	400	27	7411	7538	7245	27	—25.4	—21.5	—29.3	27	—39.5
	300	25	9447	9595	9207	25	—40.3	—35.9	—45.5	25	—51.5
	250	23	10668	10845	10511	23	—48.0	—43.6	—52.1	23	—58.6
	200	22	12101	12312	12505	22	—54.3	—43.2	—58.7	21	—64.0
	150	15	13932	14030	13844	15	—59.0	—55.9	—64.0	11	—68.2
	100	1	16416	—	—	1	—68.9	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 U.T.	Surface	30	988m.b.*	994m.b.*	984m b.*	30	22.8	30.0	16.0	30	0·8
	1000	30	91	142	52	—	—	—	—	—	—
	850	30	1503	1532	1486	30	19.9	28.2	11.8	30	—4.2
	700	30	3144	3184	3108	30	9.4	14.4	5.3	30	—11.
	600	30	4402	4454	4360	30	— 0.6	4 6	— 1.9	30	—16.7
	500	30	5839	5904	5791	30	— 9.1	— 5 3	—12.0	30	—24.9
	400	29	7531	7605	7449	29	—20.6	—17.5	—23.4	29	—32.3
	300	29	9500	9607	9525	29	—35.8	—32.0	—40.1	29	—46.7
	250	29	10846	10954	10747	29	—43.8	—39.0	—49.8	29	—54.1
	200	29	12318	12454	12174	29	—52.9	—49.0	—59.5	29	—63.8
	150	23	14134	14306	13974	23	—62.5	—56.7	—66.4	2	—73.5
	100	2	16543	16562	16524	2	—73.2	—72.3	—74.2	—	—0
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N — The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

Table B 1 (*contd*).—**MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES**

APRIL 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 UT	Surface	30	*1014m.b.	*1021m.b.	*997m.b.	30	20.6	28.0	17.6	30	10.6
	1000	29	153	207	114	29	18.8	28.4	15.8	29	8.5
	850	30	1520	1585	1396	29	10.8	24.2	2.6	29	— 4.2
	700	30	3113	3220	3024	29	2.4	15.2	— 6.7	29	—14.0
	600	28	4343	4497	4211	27	— 5.2	3.1	—15.2	27	—20.5
	500	28	5750	5941	5561	28	—14.6	— 7.2	—25.6	28	—28.6
	400	28	7404	7631	7151	28	—29.2	—18.5	—30.0	27	—39.3
	300	27	9420	9706	9156	27	—40.3	—33.5	—45.0	27	—52.7
	250	27	10544	10960	10376	27	—48.0	—41.1	—52.2	27	—60.0
	200	24	12103	12455	11859	24	—53.8	—46.7	—61.5	17	—64.8
	150	19	13935	14284	13719	19	—57.8	—53.3	—61.5	11	—67.9
	100	17	16482	16786	16351	17	—64.0	—59.3	—72.1	—	—
	70	10	18633	18777	18455	10	—64.8	—61.7	—67.8	—	—
	60	8	19590	19760	19400	8	—63.6	—61.1	—68.0	—	—
	50	8	20698	20844	20530	8	—61.2	—57.5	—65.7	—	—
	40	6	22168	22370	22030	6	—57.4	—53.3	—61.0	—	—
	30	6	23916	24138	23740	6	—53.3	—48.5	—57.7	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	26	*996m.b.	*1003m.b.	*990m.b.	26	26.4	37.6	20.0	26	3.2
	1000	26	107	165	68	4	22.5	24.0	20.7	4	4.1
	850	26	1505	1554	1464	26	14.1	26.7	3.8	26	— 7.0
	700	26	3118	3178	3034	25	6.0	12.4	— 3.2	25	—17.0
	600	26	4365	4426	4248	26	— 1.9	4.2	— 8.6	26	—23.9
	500	26	5790	5884	5655	26	—12.1	— 7.9	—17.9	26	—31.6
	400	26	5457	7569	7305	26	—24.1	—19.8	—29.4	26	—41.8
	300	26	9496	9635	9306	25	—38.7	—35.3	—43.8	25	—54.7
	250	26	10726	10872	10519	25	—47.0	—43.1	—50.1	25	—61.6
	200	25	12191	12339	12044	24	—53.5	—45.0	—59.5	22	—67.2
	150	24	14030	14186	13885	24	—58.0	—53.7	—63.5	18	—70.6
	100	22	16548	16715	16427	22	—64.3	—60.6	—67.1	—	—
	70	20	18714	18883	18594	20	—66.3	—62.8	—70.1	—	—
	60	18	19678	19780	19600	18	—65.4	—63.0	—68.5	—	—
	50	18	20763	20865	20687	17	—62.4	—54.7	—68.1	—	—
	40	13	22252	22370	22180	13	—57.6	—53.7	—60.4	—	—
	30	13	23977	24080	23888	13	—52.5	—49.2	—55.1	—	—
	20	7	26650	26746	26550	7	—46.1	—45.1	—49.2	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	30	*988m.b.	*993m.b.	*985m.b.	30	34.2	43.0	24.0	30	1.4
	1000	30	85	131	52	—	—	—	—	—	—
	850	30	1517	1558	1495	30	20.9	29.0	13.4	30	— 8.1
	700	30	3162	3209	3124	30	10.1	15.1	6.1	30	—15.9
	600	30	4423	4478	4372	30	1.4	5.2	— 2.0	30	—21.0
	500	30	5866	5924	5805	30	— 8.1	— 6.1	—11.6	30	—29.0
	400	30	7565	7635	7493	30	—19.1	—15.3	—23.6	30	—37.9
	300	27	9638	9718	9535	27	—34.4	—31.7	—37.7	27	—51.9
	250	27	10890	10990	10779	27	—42.8	—37.4	—47.2	27	—59.4
	200	27	12333	12480	12274	27	—51.5	—48.0	—56.7	27	—66.9
	150	27	14196	14305	14099	27	—61.9	—58.1	—64.3	5	—73.8
	100	27	16657	16760	16535	27	—70.2	—65.2	—74.3	—	—
	70	26	18757	18840	18635	26	—71.6	—67.5	—76.5	—	—
	60	26	19718	19810	19550	26	—68.9	—67.1	—71.2	—	—
	50	26	20775	20864	20635	26	—64.3	—60.4	—69.1	—	—
	40	26	22268	22460	21950	26	—58.0	—52.9	—60.8	—	—
	30	23	24003	24132	23835	23	—51.6	—48.6	—55.0	—	—
	20	13	26653	26778	26475	13	—44.3	—37.7	—48.6	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE ; THE HIGHEST WIND SPEED IN THE UPPER AIR

APRIL — 1973

STATION	Freezing Level									First Tropopause									Highest wind speed			
	Mean			Highest			Lowest			Mean			Highest			Lowest						
	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (0°=360°)	Speed in knots
0000 U.T.	(N)	(N)	(N)							(N)	(N)	(N)										
Mersa Matruh	3341 (30)	680 (30)	—14.0 (30)	4600	586	—9.4	1680	825	—2.2	11196 (9)	227 (9)	—51.8 (9)	12060	199	—5[illegible]	10770	242	—52.0	181[illegible]	—	305	0[illegible]0
Helwan . . .	3715 (27)	651 (27)	—16.4 (27)	4690	580	—27.0	1900	806	—5.0	11693 (9)	212 (9)	—5[illegible] (9)	12[illegible]0	[illegible]	—58.0	10420	251	—44.8	10470	265	285	142
Aswan	4468 (30)	596 (30)	—17.3 (30)	4920	569	—12.4	4060	625	—5.1	—	—	—	—	—	—	—	—	—	4020	—	255	05[illegible]
1200 U.T.																						
Mersa Matruh	3[illegible]00 (30)	672 (30)	—15.4 (30)	4840	574	—11.5	1800	818	—8.4	12179 (18)	267 (18)	—55.6 (18)	19920	77	—69.9	9[illegible]	275	—49.9	7650	—	210	150
Helwan . . .	3988 (26)	638 (26)	—20.5 (25)	5080	553	—18.7	2230	773	—8.4	12849	18[illegible]	—57.1	16430	103	—66.2	1[illegible]	249	—[illegible]0.4	11[illegible]	—	270	150
Aswan	4604 (30)	587 (30)	21.8 (30)	5010	561	—25.9	4010	630	—26.8	17696 (26)	85 (26)	—73.9 (26)	19150	66	—75.5	14220	147	—67.3	8765	—	260	112

N — The number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

MERSA MATRUH (A) APRIL 1973

Time	Pressure Surface Millibar.	Wind between ranges of direction (000– 360°). 345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344		Number of Calm winds	Total Number of Observations T.N	Mean Scalar wind Speed Knot
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	1	14	0	—	2	14	3	12	4	8	2	6	1	10	2	18	2	7	5	10	3	7	3	10	2	30	9
	1000	0	—	1	5	0	—	3	13	5	13	2	12	0	—	3	11	2	12	1	24	4	16	5	15	0	26	14
	850	1	13	0	—	4	11	1	12	1	8	0	—	1	21	3	17	5	19	3	14	4	21	1	13	0	24	16
	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	1	15	4	10	5	14	5	9	0	—	0	—	0	—	0	—	0	—	0	—	2	20	13	16	0	30	14
	1000	2	16	3	11	5	12	3	12	0	—	0	—	0	—	0	—	0	—	0	—	11	23	1	14	0	28	18
	850	1	4	3	7	1	7	1	10	1	4	0	—	3	18	1	19	1	23	7	23	4	14	2	16	0	28	17
	700	1	18	1	22	1	5	0	—	0	—	0	—	1	22	0	—	8	32	7	34	3	23	2	25	0	24	29
	600	0	—	0	—	0	—	0	—	1	10	0	—	0	—	1	48	7	45	9	38	4	30	0	—	0	22	35
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	41	6	43	10	47	3	33	0	—	0	21	44
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	52	9	54	2	32	0	—	0	14	51
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	60	5	61	1	43	0	—	0	9	59
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	74	1	50	0	—	0	8	64
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	72	4	93	1	69	0	—	0	7	84
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	94	2	82	1	52	0	—	0	4	77
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	122	0	—	0	—	0	—	0	1	122
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3. *(contd.)*—**NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**

HELWAN — APRIL 1973

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000–360)°																						Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	6	6	14	10	0	—	2	8	2	7	0	—	0	—	0	—	0	—	1	4	0	—	1	8	2	28	8
	1000	1	4	5	12	1	12	0	—	0	—	0	—	0	—	0	—	1	22	0	—	0	—	0	—	1	9	11
	850	3	18	1	23	2	22	0	—	1	9	0	—	0	—	0	5	3	20	4	23	5	34	8	21	0	28	23
	700	1	29	0	—	0	0	0	—	0	—	0	—	0	20	1	—	3	55	5	35	13	38	1	78	0	25	42
	600	1	20	0	—	0	0	0	—	0	—	0	—	2	—	0	73	4	68	8	60	6	38	0	—	0	21	55
	500	0	—	0	—	0	0	0	—	0	—	0	—	0	—	2	—	2	78	1	74	6	56	1	43	0	10	61
	400	0	—	0	—	0	0	0	—	0	—	0	—	0	—	0	—	2	76	1	82	4	52	0	—	0	7	62
	300	0	—	0	—	0	0	0	—	0	—	0	—	0	—	0	—	0	—	1	103	2	52	0	—	0	3	69
	250	0	—	0	—	0	0	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	47	0	—	0	1	47
	200	0	—	0	—	0	0	0	—	0	—	0	—	0	—	0	—	0	—	1	83	0	—	0	—	0	1	83
	150	—	—	—	—	—	—	—	—	—	—	—	—	0	—	0	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	4	8	7	9	0	—	1	12	0	—	0	—	0	—	1	15	3	10	5	10	1	11	4	10	0	26	10
	1000	0	—	2	16	0	—	0	—	0	—	0	—	0	—	0	—	1	12	0	—	0	—	1	8	0	4	13
	850	0	—	5	14	2	14	1	5	1	19	0	—	0	—	1	12	1	25	3	21	8	18	3	14	0	25	16
	700	0	—	1	19	0	—	0	—	0	—	0	—	1	11	1	11	4	41	8	44	6	31	4	12	0	25	32
	600	0	—	1	10	0	—	0	—	0	—	0	—	0	—	1	22	3	48	9	66	7	34	1	5	0	22	47
	500	1	20	1	30	0	—	0	—	0	—	0	—	0	—	0	—	3	37	4	34	4	53	1	3	0	14	39
	400	1	80	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	51	3	50	2	28	0	9	49
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	72	0	—	4	95	0	—	0	5	90
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	112	0	—	0	—	0	1	112
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3 (*contd.*). NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

ASWAN (A) — APRIL 1973

Time	Pressure Surface (*Millibar*)	Wind between ranges of direction (000—360)°																						Number of Calm winds	Total Number of observation (TN)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	22	12	3	8	0	—	1	4	0	—	1	10	1	5	0	—	0	—	0	—	0	—	1	8	1	30	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	4	16	5	15	1	5	0	—	0	—	0	—	0	—	3	11	2	5	2	14	4	10	9	14	0	30	13
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	23	4	18	0	—	0	40	21
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	17	13	3	11	0	—	0	—	0	—	2	10	0	—	0	—	0	—	1	2	0	—	2	10	5	30	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	9	11	6	8	1	5	1	3	2	11	3	11	0	—	1	5	0	—	1	8	0	—	6	11	0	30	10
	700	2	13	0	—	1	10	2	4	0	—	0	—	1	17	1	16	1	20	7	15	6	20	4	14	0	28	16
	600	2	15	0	—	0	—	0	—	0	—	0	—	0	—	1	26	5	19	10	23	3	28	2	16	0	23	22
	500	1	13	0	—	0	—	0	—	0	—	0	—	0	—	1	40	3	33	13	30	3	28	2	22	0	23	29
	400	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	—	3	27	10	43	3	59	0	—	0	17	44
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	56	4	61	4	65	0	—	0	10	63
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	50	3	72	2	60	0	—	0	6	64
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	49	1	70	1	71	0	—	0	3	63
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	46	1	62	0	—	0	—	0	3	51
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	35	0	—	0	—	0	2	36
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — APRIL 1973

For the month as a whole the mean daily air temperature was slightly below normal, and the mean daily relative humidity was slightly above normal.

The month was intervened by five short warm spells on the 1st, 12th, 16th, 19th, (23rd and 24th). The first warm spell yielded the highest maximum air temperature for the month (29.1°C). Apart from these warm spells mild weather was experienced.

The highest maximum soil temperatures were lower than the corresponding values of last April at all depths with departures between 3.6°C (at 20 cm.) and 1.6°C (at 50 cm.). The lowest minimum soil temperatures were lower than last April at depths between 2 and 20 cm. with slight departures between 0.2°C and 0.6°C ; and were higher than last April at 50 and 100 cm. by 1.3°C and 0.3°C respectively.

The mean daily actual sunshine duration was higher than normal by only 0.1 hour. The mean daily wind speed at 1.5 metres was lower than the corresponding value of April 1972 by 0.3 m./sec.

TAHRIR — APRIL 1973

For the months as a whole the mean daily air temperature was below normal and the mean daily relative humidity was above normal. The monthwas rainless against 1.7 mm. for normal monthly rainfall.

Weather during the month was characterized by four short warm spells in the periods (1st, 2nd), (12th, 13th), 19th and 24th. The third warm spell yielded the highest maximum air temperature the month (40.4°C), the lowest relative humidity (13%), the highest mean daily wind speed (3.6 m./sec.) and the highest daily pan evaporation (17.92 mm.). Apart from these warm spells mild weather was experienced with subnormal temperatures.

The highest maximum soil temperatures were lower than the corresponding values of last Arpil at all depths with departures between 4.3°C (at 20 cm.) and 1.9°C (at 100 cm.). The lowest minimum soil tempratures were lower than last April at all depths except at 20 cm. where its value was the same as last April and at 50 cm. where its value was higher than last April ; the departures were generally slight ranging between 0.1° and 1.0° C.

The mean daily actual sunshine duration was higher than normal by 1.0 hour. The mean daily wind speed at 1.5 met. and pan evaporation were lower than normal by 0.4 m./sec. and 1.74 mm. respectively.

BAHTIM — APRIL 1973

For the month as a whole the mean daily air temperature and relative humidity were slightly below average. The month was rainless apart from trace on the 5th, against 4.0 mm. for average monthly rainfall.

The month was intervened by three short heat waves in the periods (1st, 2nd), (19th, 20th) and 24th. The second heat wave yielded the highest maximum air temperature for the month (38.5°C) and the lowest relative humidity (13%) on the 19th, and the highest minimum air temperature (17.7°C) on the 20th. Apart from these heat waves mild weather was experienced.

The highest maximum soil temperatures were lower than the corresponding values of last April at all depths with departures between 3.4°C (at 10 cm.) and 0.2°C (at 100 cm.). The lowest minimum soil temperatures were higher than the corresponding values of last April at all depths apart from 100 cm. where its value was the same as last April; the departures varied between 1.1°C (at 5 cm.) and 0.3°C (at 50 cm.).

The mean daily actual sunshine duration was higher than average by 0.9 hour. The mean daily pan evaporation and wind speed at 1.5 m. showed insignificant departures from the corresponding average values.

KHARGA — APRIL 1973

For the month as a whole the mean daily air temperature and relative humidity were slightly above average.

Weather during the month was changeable in temperature. It was intervened by four heat waves in the periods (1st and 2nd), (12th and 13th), (17th— 20th) and (24th and 25th). The third heat wave was the most excessive. It yielded the highest maximum air temperature for the month (43.8°C) and the highest daily pan evaporation (28.64 mm.) on the 19th, and the highest minimum air temperature (25.4°C) on the 20th. Apart from these heat waves mild weather was experienced.

The highest maximum soil temperatures were lower than the corresponding values of last April at 2, 50 and 100 cm. depths with departures between 0.2° and 0.9°C, and were higher than last April at 5, 10 and 20 cm. depths with departures between 0.8°C (at 5 cm.) and 2.0°C (at 10 cm.). The lowest minimum soil temperatures were lower than last April at depths between 2 and 20 cm. with departures between 0.1°C (at 2 cm.) and 1.5°C (at 10 cm.), and were higher than last April at 50 and 100 cm. depths by 0.8°C and 0.4°C respectively.

The mean daily actual sunshine duration was lower than average by 0.4 hour. The mean daily wind speed at 1.5 m. and pan evaporation showed insignificant departures from the corresponding average values.

Table C 1. AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

APRIL — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values									
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	5°C	6°C	5°C	10°C	15°C	20°C	25°C	3 .°C	35°C	40°C	45°C
Mersa Matruh . .	21.7	12.0	16.8	14.5	18.2	24.0	24.0	24.0	23.9	16.9	3.1	0.3	0.0	0.0	0.0	0.0
Tahrir	27.6	10.1	18.1	13.9	20.7	24.0	24.0	24.0	22.6	15.1	8.9	2.6	0.3	0.1	0.0	0.0
Bahtim	27.3	9.5	18.0	13.1	20.9	24.0	24.0	24.0	22.1	14.8	9.2	3.2	0.7	0.1	0.0	0.0
Kharga	33.2	16.7	25.6	22.3	27.6	24.0	24.0	24.0	24.0	23.2	19.8	12.3	5.6	1.5	0.3	0.0

Table C 2. EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cm ABOVE GROUND OVER DIFFERENT FIELDS

APRIL — 1973

STATION	Max. Temp. at 1½ metres				Min. Temp. at 1½ metres				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Mersa Matruh . . .	29.4	1	17.8	17	16.0	25	8.3	10	5.2	22	—	—
Tahrir	40.3	19	23.2	7	14.4	29	6.0	9	1.2	9	3.8	9
Bahtim	38.5	19	22.4	7	17.7	29	6.4	9	2.0	9	2.0	9
Kharga	43.8	19	27.0	8	25.4	20	9.3	24	7.2	24	—	—

Table C 3. (SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL

APRIL — 1973

STATION	(Solar + Sky) Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Class A	Total Amount Monthly	Max. fall in one day	Date
M. Matruh .	—	282.7	388.7	73	68	57	17	24	9.6	10.1	13.1	2	5.8	16	5.9	—	0.0	0.0	—
Tahrir . . .	585.4	326.0	387.7	84	62	37	13	19	9.2	8.9	13.4	25	5.9	7	5.9	7.94	0.0	0.0	—
Bahtim . . .	593.3	318.8	387.2	82	59	34	13	19	8.6	8.2	13.4	2	5.1	7	8.3	8.62	Tr.	Tr.	5
Kharga . .	626.8	300.2	382.7	78	30	21	6	25	7.2	7.8	15.6	30	2.8	25	15.2	16.00	0.0	0.0	—

Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms) IN DIFFERENT FIELDS

APRIL — 1973

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
El Kasr	H	33.1	30.7	26.4	23.0	21.8	20.0	19.6	—	—	—	—	—	—	—	—	—
	L	13.9	13.7	14.3	17.1	19.3	18.6	19.0	—	—	—	—	—	—	—	—	—
Tahrir	H	43.8	37.2	31.9	27.2	24.3	23.1	22.0	21.9	29.7	27.4	25.6	22.5	21.5	21.0	20.7	—
	L	17.6	16.2	16.4	19.2	21.1	20.3	20.0	20.3	15.3	15.0	14.4	16.8	18.1	18.0	18.2	—
Bahtim.	H	46.2	37.4	30.8	26.1	24.1	22.9	22.4	22.8	27.6	23.8	21.8	20.6	19.6	19.1	18.8	—
	L	18.5	17.5	18.5	21.7	21.4	20.7	21.7	22.6	15.3	14.5	15.8	17.2	17.2	16.9	18.1	—
Kharga.	H	54.9	47.5	41.4	34.0	29.3	27.5	26.3	26.7	—	—	—	—	—	—	—	—
	L	13.7	16.9	19.2	23.8	26.0	25.2	25.2	26.5	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

APRIL — 1973

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres							Max. Gust (knots) at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	value knots	Date
El Kasr . . .	4.2	3.0	5.4	30	27	20	8	5	2	2	47	19
Tahrir	2.2	1.4	3.0	29	22	6	1	1	1	1	53	19
Bahtim. . . .	2.4	1.6	3.2	30	22	7	1	1	0	0	39	9,19
Kharga . . .	3.9	3.2	4.8	29	23	10	3	0	0	0	30	26

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THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 16 NUMBER 5

MAY, 1973

U.D.C. 551. 506.1 (62)

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues serveral reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields

THE ARAB REPUBLIC OF EGYPT

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Note : For explanatory notes on the tables please refer to Volume 16, Number 1 (January 1973).

GENERAL SUMMARY OF WEATHER CONDITIONS

MAY 1973

Generally mild at coast ; changeable inland. Four heat waves , the last was the most excessive.

PRESSURE DISTRIBUTION

During this month the mean sea level pressure was slightly above normal in general.

Pressure was mainly influenced by the predominating high pressure over the mediterranean. and the extension of the Sudan and Arabian Monsoon lows. ,

Two shallow Khamsin depressions passed through north of the country on the 2nd & 14th.

SURFACE WIND

The prevailing winds were generally light to moderate NLY and NWLY. Fresh to strong winds were experienced during several days in scattered localities mainly in the Western Desert, Upper Egypt and Red Sea districts.

Gales were reported at Asiut on the 22nd.

TEMPERATURE

The month was intervened by four heat waves round the pericds : (1st+2nd), 7th—10th), 13th and (21st—26th).

The last heat wave was the most excessive.

Maximum air temperatures ware moderately above normal during the first three heat waves, but were markedly above normal during the fourth wave. Otherwise, maximum air temperatures were below normal with marked departures during the third weck,

The highest and lowest maximum air temperatures reported were :

46.0° C at Aswan on the 24th

20·4° C at Sallum on the 2nd respectively

Minimum air temperatures oscillated round normal with small departures in general.

The highest and lowest minimum air temperatures reported were :

30.2° C at Kharga on the 24th

9.1° C at Shebin El Kom. on the 18th respectively

PRECIPITATION

This month was rainless in general, apart from light rain over few local places on the 14th, 22nd — 31st.

The maximum daily rainfall was 6.2 mm at Kom Ombo on the 22nd, which was also the maximum monthly rainfall. This rainfall amount is a record for both daily and monthly rainfall at Kom Ombo since the year 1954.

OTHER WEATHER PHENOMENA

Rising sand was reported during several days in scattered places mainly in the Western Destert, Upper Egypt and Red Sea districts in association with or after the passage of cold fronts.

Chairman (M. F. TAHA)

Board of Directors

Cairo, April 1975

SURFACE DATA

Table A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

MAY — 1973

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms.
			Maximum		Minimum		A+B / 2	Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	Mean
Sallum	1015.0	+1.0	27.4	+0.8	16.8	+0.2	22.1	21.5	+0.6	15.7	−0.6	51	−8	—	—	—	7.4
Mersa Matruh (A)	1015.4	+1.7	24.7	−0.7	15.6	+1.0	20.2	20.3	+0.3	16.5	+0.1	66	0	348.4	426.5	82	6.5
Alexandria . .(A)	1014.5	+1.4	25.4	−1.3	16.6	+0.1	21.0	20.9	−0.5	17.3	−0.2	68	+1	358.1	425.6	84	4.9
Port Said . .(A)	1013.0	+0.4	26.1	+0.5	17.9	−1.4	22.0	21.5	−0.5	18.1	−0.8	71	+1	371.3	425.6	87	4.8
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1013.6	+0.8	31.4	− 0.3	13.5	−1.1	22.5	21.8	−0.8	16.0	−0.6	51	0	361.7	424.7	85	6.6
Cairo . . . .(A)	1013.2	+1.0	31.8	−0.4	16.9	−0.5	24.4	24.0	−0.6	16.7	− 0.3	44	+1	—	—	—	14.6
Fayoum	—	—	34.0	+0.3	16.2	−1.0	25.1	25.1	+0.1	16.9	+0.5	39	+2	—	—	—	9.4
Minya . . . .(A)	1011.5	+0.4	34.5	−0.3	15.8	−0.6	25.2	25.5	−0.2	16.4	−0.2	35	0	365.0	419.4	89	18.9
Assyout . . .(A)	1010.7	+0.1	35.4	−0.6	18.4	− 0.8	26.9	27.0	−0.6	15.7	−0.2	24	0	—	—	—	19.9
Luxor . . . .(A)	1009.2	+0.3	38.9	+0.1	19.7	−0.4	29.3	29.6	−0.5	17.1	−0.3	22	0	—	—	—	13.5
Aswan . . . .(A)	1008.8	+0.3	38.8	+0.3	22.0	+0.9	30.4	30.5	+0.1	15.5	0.0	12	0	—	—	—	27.6
Siwa	1014.2	+1.4	33.9	−0.3	15.3	−1.4	24.6	24.9	−0.8	16.1	+0.6	35	+7	363.2	421.4	86	12.2
Bahariya	1013.9	+1.0	33.7	−0.6	17.1	−0.2	25.4	25.6	−0.4	15.3	−0.5	28	−1	—	—	—	12 2
Farafra	1013.9	+0.5	34.8	+0.4	17.7	+0.9	26.3	26.4	+0.7	14.9	+0.1	22	−3	—	—	—	18.1
Dakhla	1012.2	+0.9	35.6	−1.2	13.3	−1.1	27.0	27.7	+0.1	15.0	−0.6	18	−1	—	—	—	22.9
Kharga	1010.7	+0 8	37.0	−0.6	22.2	+1.3	29.6	30.0	+1.0	16.4	+ 0.9	18	−3	363.2	414.1	88	18.7
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1009.7	−0.2	30.4	+0.5	21.1	+0.1	25.8	26.1	+0.4	19.5	+1.4	52	+8	378.1	417.3	90	12.0
Ouseir	1009.5	+0.1	29.3	−0.9	22.6	−0.2	26.0	26.3	0.0	18.3	−0.5	43	−3	—	—	—	12.4

Table A 2.--MAXIMUM AND MINIMUM AIR TEMPERATURES

MAY — 1973

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp. >25	>30	>35	>40	>45	Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp. <10	<5	<0	<-5
Sallum	37.6	23	20.4	2	20	7	1	0	0	16.1	—	21.2	22	12.6	4	0	0	0	0
Mersa Matruh (A)	32.8	23	20.7	12	12	2	0	0	0	14.1	—	20.0	25	12.6	4	0	0	0	0
Alexandria (A)	30.5	22	21.9	15	18	1	0	0	0	14.2	—	20.0	26	11.5	18	0	0	0	0
Port said (A)	30.2	22	23.3	16	21	1	0	0	0	17.4	—	19.8	27	15.8	17	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	36.4	22	25.0	16	30	19	2	0	0	—	—	17.4	27	9.8	1	1	0	0	0
Cairo (A)	37.7	23	25.7	16	31	21	5	0	0	—	—	19.8	27	14.0	3	0	0	0	0
Fayoum	40.0	23	27.3	16	31	28	11	0	0	13.8	—	20.2	26	11.1	17	0	0	0	0
Minya (A)	40.6	22	28.4	16	31	28	13	2	0	14.9	—	19.6	25	12.0	17	0	0	0	0
Assyout (A)	43.0	22	27.6	16	31	28	18	4	0	15.2	—	24.2	23	14.4	1	0	0	0	0
Luxor (A)	44.8	23	30.8	16	31	31	27	11	0	11.4	—	25.8	24	15.0	5	0	0	0	0
Aswan (A)	46.0	24	31.2	16	31	31	28	9	2	—	—	29.8	24	16.2	17	0	0	0	0
Siwa	41.0	13	26.2	15	31	26	13	1	0	14.6	—	19.6	13	11.2	17	0	0	0	0
Bahariya	40.1	23	26.6	16	31	27	11	1	0	15.9	—	21.5	23	12.6	17	0	0	0	0
Farafra	41.0	24	28.1	16	31	29	12	2	0	17.1	—	23.2	25	12.7	17	0	0	0	0
Dakhla	42.4	22	27.5	16	31	28	15	4	0	18.2	—	26.5	25	10.8	17	0	0	0	0
Kharga	43.4	22.24	30.3	16	31	31	21	5	0	20.2	—	30.2	24	14.8	17	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	35.0	2	27.3	18	31	15	0	0	0	—	—	25.7	23	17.3	17	0	0	0	0
Quseir	33.8	14	26.4	3	31	10	0	0	0	19.3	—	26.1	24	20.0	17	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL.

MAY — 1973

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	1.0	1.0	2.6	0.8	1.4	0.0	—4.1	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	1.1	2.5	1.5	1.8	1.8	0.6	—2.4	0.3	14-31	0	2	0	0	0	0	0
Alexandria (A)	2.7	2.2	1.6	2.1	2.2	0.0	—1.7	0.0	—	0	0	0	0	0	0	0
Port Said (A)	0.5	1.1	0.6	0.9	0.7	0.0	—2.6	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.4	1.8	1.4	0.2	0.8	0.0	— 4.2	0.0	—	0	0	0	0	0	0	0
Cairo (A)	0.5	1.5	1.0	0.7	0.9	0.0	— 0.7	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0 7	1.2	0.4	—	0.0	— 1.1	0.0	—	0	0	0	0	0	0	0
Minya	0.5	0.7	0.6	1.0	0.7	0.0	— 0.5	0,0	--	0	0	0	0	0	0	0
Assyout (A)	0.1	0.2	0.2	0.2	0.2	Tr.	0.0	Tr.	22	0	0	0	0	0	0	0
Luxor (A)	0 6	1.6	1.8	1.5	1.4	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.5	1.5	1.7	1.2	1.4	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	0.7	0.5	1.3	1.2	1.0	0.0	— 1.6	0.0	—	0	0	0	0	0	0	0
Bahariya	0.1	0.7	0 5	0 5	0 4	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Farafra	—	0 4	0.6	0 4	—	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Dakhla	0.1	0 9	0.8	0.8	0.6	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Kharga	0.5	1 2	1.2	0.8	1 0	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.0	1.1	1.0	0.8	1.0	0.0	— 0.5	0·0	--	0	0	0	0	0	0	0
Qusen	1.1	1.6	1.8	1.3	1.4	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0

Table A 4.—DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

MAY — 1973

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis <1000 Metres	Haze Vis ≥1000 Metres	Thick Haze Vis <1000 Metres	Dust or Sandrising Vis ≥1000 Metres	Dust or Sandstorm Vis <1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice. Pellets	Hail											
Sallum	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
Mersa Matruh (A)	2	0	0	0	0	0	0	0	0	0	7	0	0	16	0
Alexandria . (A)	0	0	0	0	0	0	1	0	0	0	0	0	0	14	0
Port Said . (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	5	0	0	0	0	0	0	25	0
Cairo . . . . (A)	0	0	0	0	0	0	11	1	5	0	2	0	0	28	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya . . . . (A)	0	0	0	0	0	0	0	0	2	0	6	0	0	28	0
Assyut. . . . (A)	0	0	0	0	0	0	0	0	0	0	3	1	1	31	0
Luxor . . . . (A)	0	0	0	0	0	0	0	0	13	0	10	3	0	21	0
Aswan . . . . (A)	0	0	0	0	0	0	0	0	5	0	17	1	0	22	0
Siwa	0	0	0	0	0	0	0	0	0	0	7	0	0	26	0
Bahariya	0	0	0	0	0	0	0	0	0	0	4	0	0	30	0
Farafra	0	0	0	0	0	0	0	0	0	1	3	1	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	7	0	0	27	0
Kharga	0	0	0	0	0	0	0	0	0	0	4	0	0	26	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0		0	0	0	0	14	0	0	25	0
Quseir	0	0	0	0	0		0	0	2	0	0	0	0	21	0

TABLE A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

MAY — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions
Sallum	38	5	0	1—10	34	83	88	62	44	9	7	1	8	30	77	48	541
				11—27	3	13	7	0	0	0	0	0	4	4	46	83	160
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	37	96	95	62	44	9	7	1	12	34	123	181	701
Mersa Matruh (A)	18	0	0	1—10	49	40	11	12	21	2	10	20	31	105	63	110	474
				11—27	4	5	0	6	2	0	0	2	2	3	106	116	252
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	53	45	11	18	23	2	10	22	33	108	169	226	726
Alexandria (A)	0	0	0	1—10	125	30	23	10	5	5	6	8	3	16	73	158	468
				11—27	85	6	2	4	0	0	0	0	0	5	63	111	276
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	210	42	25	14	5	5	6	8	3	21	136	269	744
Tanta	39	0	0	1—10	101	60	27	21	5	2	7	15	41	89	93	114	575
				11—27	65	18	0	0	1	0	0	0	3	9	16	18	130
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	166	78	27	21	6	2	7	15	44	98	109	132	705
Cairo	83	0	0	1—10	66	94	26	11	3	0	1	1	13	68	50	80	416
				11—27	52	79	14	2	1	0	0	3	6	35	11	42	245
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	118	173	43	13	4	0	1	4	19	103	61	122	661
Fayoum	1	0	0	1—10	337	216	15	0	2	3	4	2	4	15	53	32	683
				11—27	2	40	5	0	0	0	0	0	0	3	0	0	60
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	339	256	20	0	2	3	4	2	4	18	53	32	743
Minya	0	6	0	1—10	205	85	2	0	1	5	0	1	1	1	7	50	358
				11—27	229	107	0	0	0	0	0	0	0	0	9	35	380
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	434	192	2	0	1	5	0	1	1	1	16	85	738
Asyout	8	0	0	1—10	34	9	6	2	1	5	3	0	3	64	203	105	435
				11—27	90	11	0	0	1	1	0	0	0	4	51	143	301
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	124	20	6	2	2	6	3	0	3	68	254	248	736

Table A 5 (*cont.l.*)—NUMBER IN HOURS OF OCCURENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

MAY — 1973

Station	calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Luxor . . . . (A)	68	0	0	1—10	75	48	20	10	15	23	50	21	26	36	136	125	585
				11—27	7	3	3	3	2	0	2	0	0	0	49	39	108
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	82	51	23	13	17	23	52	21	26	36	185	164	693
Aswan . . . . (A)	13	0	0	1—10	169	75	13	6	4	7	6	3	0	2	6	117	408
				11—27	128	29	2	3	7	6	1	1	0	0	7	134	318
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	297	104	15	9	11	13	7	4	0	2	13	251	726
Siwa	42	2	0	1—10	24	112	111	74	54	19	7	3	8	28	92	62	581
				11—27	4	17	21	2	2	4	0	1	3	1	64	25	105
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	28	129	132	76	56	23	7	4	11	29	104	87	686
Dakhla	18	26	0	1—10	105	48	32	13	9	12	21	20	25	48	81	136	550
				11—27	77	49	9	2	0	0	0	0	0	1	3	41	182
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	182	97	41	15	9	12	21	20	25	49	84	177	732
Kharga	8	1	0	1—10	207	54	10	1	1	4	1	1	2	4	16	123	424
				11—27	220	45	2	0	0	0	0	0	0	0	6	47	320
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	427	99	12	1	1	4	1	1	2	4	22	170	744
Hurghada	23	6	0	1—10	62	22	3	0	1	7	0	1	0	1	67	58	222
				11—27	179	13	0	0	0	0	0	0	0	2	53	264	313
				28—47	0	0	0	0	0	0	0	0	0	0	0	1	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	241	35	3	0	1	7	0	1	0	3	122	323	736
Quseir	2	0	0	1—10	116	35	7	2	2	4	4	4	5	11	57	127	374
				11—27	265	31	5	0	0	0	0	0	0	0	0	69	370
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	381	66	12	2	3	4	4	4	5	11	57	196	744

UPPER AIR CLIMATOLOGICAL DATA

Table B1.— MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDF, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES.

MAY — 1973

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 0000 U.T.	Surface	27	1013*mb.	1018*mb.	1010*mb.	27	17.9	21.8	15.0	27	13.3
	1000	27	143	178	114	26	17.9	25.0	15.0	26	13.2
	850	27	1531	1577	1473	27	15.2	22.2	5.2	27	— 1.8
	700	27	3149	3202	3071	27	5.5	10.0	— 1.7	27	—11.4
	600	27	4383	4482	4225	27	— 2.6	0.0	— 9.8	27	—19.1
	500	27	5809	5909	5727	27	—12.5	— 7.5	—19.3	27	—28.4
	400	27	7470	7576	7258	27	—25.6	—20.1	—31.0	27	—39.2
	300	25	9491	9606	9268	25	—40.5	—36.8	—44.5	24	—50.7
	250	24	10715	10826	10479	24	—49.8	—44.6	—59.7	20	—61.1
	200	20	12160	12251	11944	20	—56.0	—49.1	—60.0	18	—64.8
	150	14	13971	14086	13818	14	—59.5	—53.1	—72.1	3	—66.9
	100	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	
Helwan 0000 U.T.	Surface	31	997*mb.	1002*mb.	992*mb.	31	19.4	25.1	15.4	31	9.8
	1000	26	116	157	70	4	16.5	17.4	15.4	4	10.4
	850	27	1506	1541	1476	27	16.4	22.3	7.3	27	— 1.2
	700	27	3130	3191	3053	27	6.6	11.0	— 0.6	26	—11.6
	600	26	4377	4446	4270	26	— 1.4	2.2	— 7.5	26	—18.6
	500	26	5802	5877	5665	25	—11.0	— 6.8	—16.5	24	—28.0
	400	25	7471	7576	7307	24	—24.0	—19.8	—30.2	24	—38.7
	300	25	9504	9639	9330	25	—39.4	—34.0	—43.5	25	—50.6
	250	23	10740	10874	10602	23	—47.4	—43.3	—51.7	21	—57.6
	200	22	12192	12324	12078	22	—53.6	—45.1	—61.2	20	—62.8
	150	16	14030	14154	13922	16	—58.5	—52.7	—65.1	9	—64.8
	100	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 0000 U.T.	Surface	31	987*mb.	993*mb.	983*mb.	31	25.3	33.0	19.7	31	0.5
	1000	31	81	133	40	—	—	—	—	—	—
	850	31	1501	1530	1478	31	20.8	26.6	13.4	31	— 3.7
	700	31	3148	3181	3105	31	10.4	14.0	8.0	31	—11.5
	600	31	4411	4453	4362	31	1.1	4.7	— 5.0	31	—16.9
	500	31	5851	5914	5792	31	— 8.9	— 6.0	—11.7	31	—27.2
	400	31	7541	7621	7472	31	—20.2	—17.7	—24.3	31	—34.7
	300	31	9611	9695	9524	31	—35.0	—31.3	—40.8	31	—47.5
	250	31	10860	10947	10750	31	—43.7	—39.4	—47.1	31	—55.9
	200	30	12332	12424	12208	30	—52.9	—50.4	—55.5	30	—64.4
	150	26	14145	14253	14013	26	—63.4	—59.1	—65.1	2	—72.2
	100	4	16572	16662	16512	4	—74.6	—67.9	—77.5	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N=The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

UPPER AIR CLIMATOLOGICAL DATA

Table B 1 (*contd.*).—MONTHLY MEAN AND MONTHLY ABSOLUTE HIGHER AND LOWER VALUES OF ALTITUDE, AIR TEMPERATURE AND DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

MAY — 1973

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 VT	Surface	29	*1014m.b.	*1019m.b.	*1010m.b.	29	23.5	30.4	20.2	29	14.8
	1000	29	149	194	123	29	21.9	30.0	17.8	29	11.8
	850	29	1546	1599	1510	28	16.3	23.7	8.8	28	— 3.4
	700	28	3171	3226	3106	27	6,8	41.2	2.0	27	— 9.0
	600	28	4417	4503	4333	28	— 1.4	4.8	— 7.5	28	—18.9
	500	28	5840	5937	5719	28	—11.5	— 7.0	—16.3	28	—27.9
	400	28	7514	7653	7380	28	—23.9	—16.3	—29.3	26	—38.9
	300	26	9534	9681	9381	26	—40.2	—36.1	—44.5	25	—54.0
	250	25	10750	10882	10600	25	—49.4	—46.5	—53.3	24	—61.1
	200	25	12185	12291	12010	25	—56.7	—47.0	—64.0	15	—67.6
	150	16	14011	14126	13800	16	—57.4	—53.0	—60.7	7	—69.5
	100	9	16574	16657	16478	9	—62.9	—60.8	—66.4	—	—
	70	8	18754	18857	18668	8	—64.0	—58.7	—68.3	—	—
	60	5	19690	19870	19500	5	—61.8	—58.3	—65.0	—	—
	50	5	20840	20948	20748	5	—58.2	—55.4	—61.5	—	—
	40	4	22272	22560	21860	4	—54.5	—52.3	—57.1	—	—
	30	4	24111	24254	24015	4	—50.6	—49.0	—52.1	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	31	*996m.b.	*1003m.b.	*992m.b.	31	29.5	35.6	18.5	31	7.0
	1000	29	109	166	68	3	26.9	28.6	24.5	3	5.0
	850	29	1525	1573	1490	29	17.3	24.6	9.0	29	—2.1
	700	29	3165	3224	3083	29	7.9	11.4	1.0	29	—15.5
	600	29	4405	4486	4307	29	0.1	7.0	— 5.0	29	—22.0
	500	29	5841	5917	5708	29	—10.3	— 7.2	—15.6	29	—30.7
	400	28	7521	7609	7358	28	—38.8	—17.7	—26.8	28	—41.1
	300	28	9518	9692	9367	28	—46.9	—33.1	—42.0	27	—54.6
	250	27	10798	10935	10578	27	—57.2	—42.3	—51.2	27	—61.3
	200	27	12257	12407	12026	27	—52.7	—43.9	—57.2	25	—66.2
	150	21	14104	14270	13877	21	—57.2	—49.9	—62.3	16	—69.5
	100	20	16617	16770	16407	20	—65.6	—60.7	—70.1	—	—
	70	17	18777	18911	18655	17	—66.3	—63.6	—70.0	—	—
	60	15	19751	19900	19640	15	—62.8	—59.0	—66.5	—	—
	50	15	20843	20982	20725	15	—59.9	—56.7	—64.3	—	—
	40	14	22278	22430	22030	14	—65.2	—50.7	—58.5	—	—
	30	11	24106	24252	23952	11	—50.5	—48.6	—53.3	—	—
	20	8	26786	26934	26623	8	—45.6	—41.8	—50.8	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 VT	Surface	31	*987m.b.	*993m.b.	*983m.b.	31	36.6	44.0	29.6	31	2.4
	1000	31	76	131	32	—	—	—	—	—	—
	850	31	1519	1553	1486	31	22.6	27.5	15.4	31	— 6.9
	700	31	3173	3200	3130	31	11.6	14.6	9.0	31	—15.1
	600	31	4441	4470	4391	31	2.2	5.5	— 0.8	31	—20.6
	500	31	5888	5924	5846	31	— 8.1	— 4.6	—12.7	31	—30.8
	400	30	7282	7623	7527	30	—19.9	—17.0	—23.7	30	—39.9
	300	28	9661	9739	9593	28	—33.8	—30.7	—38.2	28	—51.8
	250	28	10915	11009	10827	28	—42.0	—39.4	—45.1	28	—59.0
	200	27	12398	12497	12293	27	—50.9	—47.1	—52.4	27	—66.4
	150	27	14230	14316	14135	27	—60.9	—56.7	—65.4	10	—73.5
	100	27	16686	16770	16606	27	—71.7	—66.4	—78 3	—	—
	70	27	18783	18906	18669	27	—71.2	—66.5	—82.2	—	—
	60	22	19733	19840	19510	22	—65 9	—60.5	—72.8	—	—
	50	22	20829	20928	20719	22	—60.9	—58.6	—64.8	—	—
	40	21	22335	22410	22220	21	—57.0	—54.5	—60.5	—	—
	30	21	24073	24158	23954	21	—51.2	—47.1	—54.5	—	—
	20	7	26754	26896	26642	7	—42.2	—33.8	—44,3	—	—
	10	—	—	—	—	—	—	—	—		

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE.

THE HIGHEST WIND SPEED IN THE UPPER AIR

MAY — 1973

	Station	Freezing level									First tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	3966 (27)	634 (27)	—16.9 (27)	4411	600	—24.3	2720	733	—8.9	11845 (8)	208 (8)	—56.6 (8)	12030	181	—60.0	11430	216	—50.1	2740	708	260	45
	Helwan . . .	4169 (26)	618 (26)	—16.6 (26)	4960	557	—12.8	2840	718	— 9.4	11468 (5)	225 (5)	—52.6 (5)	12860	180	—60.0	10660	253	—48.4	9520	302	260	140
	Aswan . . (A)	4561 (31)	589 (31)	—17.6 (31)	5160	550	—22.7	3950	632	—14.6	—	—	—	—	—	—	—	—	—	3385	680	258	42
1200 U.T.											(N)	(N)	(N)										
	M. Matruh (A)	4162 (28)	621 (28)	—17.2 (28)	5280	553	—10.0	3400	680	— 5.5	12177 (11)	202 (11)	—56.8 (11)	12980	178	—64.6	11040	235	—49.5	10930	245	255	150
	Helwan . . .	4364 (29)	606 (29)	—22.2 (29)	4800	575	—22.8	2800	726	—24.3	13284 (21)	179 (21)	—58.8 (21)	18100	79	—70.9	9810	290	—40.3	15040	131	260	150
	Aswan . . (A)	4744 (31)	579 (31)	—22.3 (31)	5150	552	—21.3	4350	609	—11.0	17283 (24)	91 (24)	—74.1 (24)	18460	75	—75.9	16000	111	—71.8	13370	172	240	124

N= The number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

MERSA MATRUH (A) — MAY 1973

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000—360)°																						Number of calm winds	Total number of observations (TN)	Mean scalar wind
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	0	—	1	12	1	6	1	9	0	—	0	—	0	—	1	6	3	4	5	6	7	12	4	10	4	27	7
	1000	1	6	0	—	2	6	2	14	0	—	0	—	0	—	0	—	1	10	5	11	7	15	2	12	0	20	12
	850	4	19	1	20	2	9	0	—	0	—	0	—	1	8	0	—	2	16	5	17	3	24	1	10	0	19	17
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	27	0	1	27
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	3	10	4	8	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	18	14	12	0	29	13
	1000	7	13	0	—	2	18	0	—	0	—	0	—	0	—	1	12	1	8	0	—	15	20	3	25	0	29	18
	850	6	17	2	30	0	—	0	—	0	—	1	25	0	—	2	16	3	18	7	19	4	22	4	14	0	29	19
	700	5	24	5	32	0	—	0	—	0	—	0	—	0	—	1	33	2	24	6	36	6	27	1	27	0	26	29
	600	5	29	3	29	0	—	0	—	0	—	0	—	0	—	2	19	5	38	5	43	3	41	3	20	0	26	33
	500	2	33	2	32	0	—	1	22	0	—	0	—	0	—	1	20	7	34	5	46	4	28	3	3	0	25	35
	400	0	—	3	46	0	—	1	26	0	—	0	—	0	—	3	23	3	53	6	67	5	31	3	43	0	24	44
	300	1	87	2	20	0	—	1	17	0	—	0	—	0	—	2	36	5	50	2	68	1	29	4	45	0	18	45
	250	1	48	3	20	0	—	0	—	0	—	0	—	0	—	3	39	4	75	2	84	1	39	3	44	0	17	51
	200	1	85	2	26	0	—	0	—	0	—	0	—	0	—	2	40	2	78	1	38	3	50	1	50	0	12	51
	150	0	—	1	31	0	—	0	—	0	—	0	—	1	43	1	50	3	76	0	—	1	99	1	32	0	8	60
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	48	0	—	1	21	0	—	0	—	0	2	34
	70	0	—	0	—	0	—	0	—	0	—	1	38	0	—	0	—	0	—	—	—	0	—	0	—	0	1	38
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	30	0	—	—	—	0	—	0	—	0	1	30
	50	0	—	0	—	0	—	0	—	0	—	1	22	0	—	0	—	0	—	—	—	0	—	0	—	0	1	22
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during themonth.

Table B 3 (*contd.*)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

HELWAN — MAY 1973

Time	Pressure Surface Millibar	Wind between specided ranges of direction (000—360)°																						Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	6	5	11	11	2	10	1	7	0	—	0	—	0	—	0	—	0	—	1	6	0	—	9	6	1	31	8
	1000	1	3	3	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	12
	850	8	17	6	22	2	14	0	—	0	—	1	22	0	—	0	—	0	—	1	11	5	20	4	20	0	27	19
	700	1	20	3	25	2	12	0	—	0	—	0	—	0	—	0	—	0	—	6	31	9	24	6	29	0	27	26
	600	0	—	3	24	0	—	0	—	1	8	0	—	0	—	1	7	0	—	9	27	6	35	6	46	0	26	31
	500	3	3	2	12	1	15	0	—	0	—	0	—	0	—	0	—	2	17	8	44	5	38	2	32	0	23	34
	400	1	40	1	38	0	—	0	—	0	—	1	3	1	9	0	—	3	34	8	52	5	40	1	24	0	21	40
	300	0	—	2	54	0	—	0	—	0	—	0	—	0	—	0	—	2	32	6	55	5	55	0	—	0	15	52
	250	0	—	1	85	0	—	0	—	0	—	0	—	0	—	0	—	2	34	6	63	1	58	2	45	0	12	56
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	36	5	86	2	54	0	—	0	8	72
	150	0	—	0	—	1	50	0	—	0	—	0	—	0	—	0	—	0	—	1	45	1	38	0	—	0	3	44
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	7	10	0	14	0	—	0	—	0	—	0	—	0	—	0	—	1	8	5	11	3	11	9	8	0	31	10
	1000	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	0	—	1	10	0	3	10
	850	3	12	11	15	2	30	0	—	0	—	0	—	0	—	0	—	0	—	4	17	5	21	4	13	0	29	15
	700	5	20	0	—	2	19	1	11	0	—	0	—	0	—	0	—	2	6	5	22	6	24	8	18	0	29	19
	600	4	26	2	12	1	11	1	22	0	—	0	—	0	—	0	—	1	2	10	26	6	34	3	23	0	28	29
	500	1	17	1	26	1	13	1	2	1	9	0	—	0	—	0	—	1	63	11	29	7	22	2	47	0	26	28
	400	2	30	0	—	0	—	1	9	0	—	2	6	0	—	0	—	2	30	7	41	6	37	1	16	0	21	32
	300	1	48	1	30	2	18	1	4	0	—	0	—	0	—	0	—	1	42	8	53	0	—	0	—	0	14	42
	250	2	28	1	10	0	—	0	—	0	—	0	—	1	25	0	—	2	42	3	73	2	24	0	—	0	11	40
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	3	39	3	51	2	42	0	—	0	9	42
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	1	56	3	58	2	47	0	—	0	6	56
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	2	52	3	73	0	—	1	44	0	6	61
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	6	0	—	1	21	0	—	1	172	0	3	66
	60	0	—	0	—	1	8	0	—	0	—	0	—	1	3	0	—	0	—	0	—	0	—	0	—	0	2	6
	50	0	—	1	7	0	—	0	—	1	9	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	8
	40	0	—	0	—	0	—	0	—	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	14
	30	0	—	0	—	0	—	1	7	1	7	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	7
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

T = The total number of cases the wind has been observed for all directions during the month.

Table B 3.—*(contd.)* NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A) — MAY 1973

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360°)																								Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 T.U.	Surface	19	12	4	14	0	—	1	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	11	1	31	12
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	4	12	8	13	3	10	0	—	2	18	2	14	0	—	0	—	1	13	2	12	2	11	7	16	0	31	13
	700	1	27	1	17	0	—	0	—	0	—	0	—	0	—	1	26	0	—	6	23	4	34	1	12	0	14	25
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	9	0	—	0	—	0	—	0	1	9
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	17	13	3	10	0	—	2	7	1	15	2	8	0	—	0	—	0	—	0	—	0	—	5	10	1	31	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	12	15	4	11	1	7	0	—	2	13	0	—	2	16	0	—	2	2	1	8	2	12	5	15	0	31	13
	700	3	5	2	13	0	—	0	—	1	24	1	2	2	17	3	16	6	20	9	19	3	13	1	10	0	31	16
	600	1	15	0	—	0	—	0	—	0	—	0	—	2	18	3	18	19	23	4	24	2	20	0	—	0	31	22
	500	1	18	0	—	0	—	0	—	0	—	0	—	0	—	4	27	18	30	2	25	3	20	0	—	0	28	28
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	30	10	39	4	35	2	38	1	10	0	22	35
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	10	49	4	46	0	—	0	—	0	15	47
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	55	6	67	0	—	0	—	0	11	62
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	54	5	69	1	58	0	—	0	—	0	7	65
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	60	3	60	1	80	0	—	0	—	0	5	64
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	42	0	—	0	—	0	—	0	—	0	2	42
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N=The number of cases the element has been observed during the month.

TN=The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — MAY 1973

This month was rather normal as regards the mean daily air temperature and relative humidity.

The month was intervened by three light heat waves on the 1st, 18th and the period (21st - 24th). The last heat wave yielded the highest maximum air temperature for the month (32.8°C) on the 23rd. Apart from these heat waves mild weather was experienced.

The highest maximum soil temperatures were higher than the corresponding values of last May at all depths with departures between 5.6°C (at 2 cm.) and 0.6°C (at 100 cm.). The lowest minimum soil temperatures were also higher than the corresponding values of last. May at all depths except at 100 cm. where its value was lower by 0.7°C ; the departures varied between 3.5°C (at 5 cm.) and 1.4°C (at 50 cm.).

The mean daily actual sunshine, duration was higher than normal by 0.5 hour. The mean daily wind speed at 1.5 met. and pan evaporation were higher than the corresponding values of May 1972 by 0.2 m./sec. and 1.85 mm. respectively.

BAHTIM — MAY 1973

For the month as a whole the mean daily air temperature and relative humidity were slightly below average.

The month was intervened by four light heat waves in the periods ; 1st, 6th, (8th-10th), 14th and a pronounced heat wave in the period (21st-26th) yielding the highest maximum air temperature for the month (37.1°C) on the 23rd and the highest daily pan evaporation (17.15 mm.) on the 21st. Apart from these heat waves, mild weather was experienced.

The highest maximum soil temperatures were higher than the corresponding values of last May at all depths except at 5 cm. where its value was lower by only 0.1°C ; the departures varied between 2.1°C (at 2 cm.) and 0.2°C (at 100 cm.). The lowest minimum soil temperatures were higher than last May at depths between 2 and 20 cm. with departures between 1.8°C (at 2 cm.) and 0.5°C (at 20 cm.) and were lower than last May at 50 and 100 cm. depths by only 0.1° and 0.2°C respectively.

The mean daily wind speed at 1.5 met. was lower than average by 0.4 m./sec. The mean daily actual sunshine duration and pan evaporation were higher than average by 0.7 hour and 0.36 mm. respectively.

TAHRIR — MAY 1973

For the month as a whole the mean daily air temperature was rather normal and the mean daily relative humidity was above normal.

The month was characterized by four light heat waves covering most of the first and second weeks, and a pronounced heat wave in the period (20*th* — 27*th*) yielding the highest maximum air temperature for the month (38.2°C) on the 23*rd* and the highest minimum air temperature (17.8°C) on the 27*th*. Two mild spells were experienced in the periods (15*th* — 19*th*) and (28*th* — 31*st*). The first spell yielded the lowest maximum air temperature for the month (26.3°C) on the 16*th* and the lowest minimum air temperature (10.6°C) on the 18*th*.

The highest maximum soil temperatures were higher than the corresponding values of last May at all depths except at 100 cm where its value was the same as last May ; the departures varied between 3.9°C (at 2 cm.) and 0.1°C (at 50 cm). The lowest minimum soil temperatures were also higher than last May at all depths except at 100 cm. where its value was lower by 0.9°C ; the departures varied between 2.9°C (at both 2.5 cm.) and 0.1°C (at 50 cm).

The mean daily actual sunshine duration was higher than normal by 0.3 hour. The mean daily wind speed at 1.5 met, and pan evoporation were lower than normal by 0.3 m./sec. and 1.84 mm. respectively.

KHARGA — MAY 1973

The mean daily air temperature and relative humidity for the month were slightly above normal.

The month was characterized by three heat waves in the periods (1*st*-3*rd*), (10*th*-14*th*) and (21*st*-27*th*). The last heat wave was the most excessive yielding the highest maximum air temperature for the month (43.4°C) on both the 22 *nd* and 24*th*, the highest minimum air temperature (30.2°C) and the lowest relative humidity (10%) on the 24*th*, the highest daily pan evaporation (29.38 mm.) on the 23*rd*.

Three mild spells were experienced in the periods (4*th*-8*th*), (15*th*-20*th*) and (28*th*-31*st*). The second spell yielded the lowest maximum air temperature for the month (30.3°C) on the 16*th*, and the lowest minimum air temperature (14.8°C) on the 17*th*.

The highest maximum soil temperatuure was lower than last May at 2 cm. depth by 1.5°C, and higher at all depths between 5 and 100 cm. with departures between 3.9°C (at 10 cm.) and 0.3°C (at 100 cm.). The lowest minimum soil temperatures was higher than last may at depths between 2 and 20 cm. with departures between 3.3°C (at 2 cm) and 0.4°C (at 10 cm). ; and was lower than last May at 50 and cm. depths by 0.1°C and 0.2°C respectively.

The mean daily actual sunshine duration wind speed at 1.5 met, and pan evaporation were higher than normal by 0.3 hour, 0.3 m./sec. and 1.18 mm. respectively.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

MAY — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	—5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
M. Matruh . .	24.7	15.6	20.4	18.1	21.2	24	24	24	24	23.3	12.4	2.0	0.2	0.0	0.0	0.0
Tahrir	32.6	14.2	22.4	17.8	24.2	24	24	24	24	21.7	13.7	8.4	3.1	0.3	0.0	0.0
Bahtim	31.6	13.0	22.0	17.0	25.1	24	24	24	24	20.2	13.5	8.3	3.0	0.3	0.0	0.0
Kharga . . .	37.0	22.2	30.0	26.7	31.2	24.0	24.0	24.0	24.0	24.0	23.5	18.9	11.4	4.8	0·9	0.0

Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS

MAY — 1973

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh	32.8	23	20.7	12	20.0	25	12.6	4	10.5	19	—	—
Tahrir	33.2	23	26.3	16	17.8	27	10.6	10.18	8.8	18	6.8	18
Bahtim	37.1	23	26.3	16	18.0	27	10.1	18	7.2	18	5.5	17
Kharga	43.4	22.24	30.3	16	30.2	24	14.8	17	11.8	17	—	—

Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY AND, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION AND RAINFALL

MAY — 1973

STATION	(Solar+Sky Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
M.Maturh	597.3	318.4	426.5	82	69	60	31	1.18	12.4	13.0	19.9	30	7.0	13	6.5	7.63	0.0	0.0	—
Tahrir .	637.4	333.9	424.6	86	61	33	19	10	11.6	10.7	16.7	24	7.3	17	6.9	9.88	0.0	0.0	—
Bahtim .	652.0	351.6	423.5	83	55	29	17	10	10.2	9.4	15.1	26	6.4	1	9.7	10.96	0.0	0.0	—
Kharga	687.3	363.2	414.1	88	24	17	10	24	7.4	7.7	10.8	6.15	4.0	1.19	18.7	21.21	0.0	0.0	—

* Total for 29 days.

Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms) IN DIFFERENT FIELDS

MAY — 1973

Station	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
Mersa Matruh.	H	39.5	36.9	31.4	27.4	25.3	23.0	21.0	—	—	—	—	—	—	—	—	—
	L	19.1	19.1	18.7	20.2	21.5	19.9	19 0	—	—	—	—	—	—	—	—	—
Tahrir	H	51.7	44.8	38.9	33 0	29.5	27.2	24.8	23.8	34.1	32.3	29.8	26.6	25.0	24.2	23.2	—
	L	22.5	21.3	20 5	23.0	23.9	23.2	22.1	22.2	19.8	19.1	18.9	19.6	21.4	21.1	20.7	—
Bahtim	H	53.4	44.6	36.6	31.1	27.7	25.6	23.6	23.2	32.8	29.9	28.2	26.3	22.8	21.3	19,8	—
	L	23.1	21.5	21.8	24.4	24.0	23 0	22.5	22.7	16.9	16.8	17-6	18.7	19.5	19.1	18.9	—
Kharga . . .	H	53.7	48.6	44.0	38.0	32.8	30.0	27.6	27.3	—	—	—	—	—	—	—	—
	L	17.1	20 8	23.7	28.0	28.5	27.6	26.3	26.7	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

MAY — 1973

Station	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres							Max. Gust (knots at 10 meters)	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	30 knots	≥35 knots	≥40 knots	value (knots)	Date
Mersa Matruh.	4.2	2.9	5.4	31	24	13	3	1	0	0	34	15
Tahrir	2.1	1.5	2.8	31	22	4	1	0	0	0	32	16
Bahtim	2.2	1.4	3.1	31	19	7	1	0	0	0	32	14
Kharga	4.3	3 3	5.4	31	27	7	0	0	0	0	29	4,31

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THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 16 NUMBER 6

JUNE, 1973

U.D.C. 551, 506.1 (62)

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues serveral reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 19 68 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.

THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

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JUNE, 1973

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on the tables please refer to Volume 16, Number 1 (January 1972).

GENERAL SUMMARY OF WEATHER CONDITIONS

JUNE 1973

Mild summer weather with two heat waves in Lower and Middle Egypt; hot in southern parts.

PRESSURE DISTRIBUTION

The surface atmospheric pressure during this month was mainly affected by the monsoon trough and the high pressure over the Mediterranean.

The monsoon trough extended pronouncedly over Asia Minor and the East Mediterranean round the 10th and the 25th giving rise to heat waves over the northern parts of Egypt.

SURFACE WIND

Light to moderate NE ly and NW ly winds prevailed mostly during this month. Winds freshened occasionally during several days in scattered places mainly in the Western Desert, Upper Egypt and Red Sea districts. Early morning calm winds were frequent in many places.

TEMPERATURE

This month was intervened by three short heat waves. The first wave was experienced during the first week only in Upper Egypt. The other two heat waves prevailed allover the country during the second and fourth weeks, the first of which was the most excessive wave in this month.

Maximum air temperatures were above normal during the heat waves with appreciable departures during the second heat wave. Otherwise maximum air temperatures were slightly or moderately below normal.

The highest and lowest maximum air temperatures reported during this month were

47.0° C at Kom Ombo on the 26th,

23.2° C at Sidi Barrani on the 1st.

respectively.

Minimum air temperatures showed irregular slight to moderate departures from normal.

The highest and lowest minimum air temperatures reported during this month were

29.8° C at Quseir on the 11th,

13.4° C at Bahtim on the 3rd.

respectively.

PRECIPITATION

No rain was reported during this month apart from light rain over few places in north on the 16th.

The rainfall amounts on this day attained the following records for both daily and monthly rainfall amounts :

at Tanta 2.4 mm (since the year 1931)

at Shebin El Kom 1.7 mm (since the year 1946)

at Banha 3.0 mm (since the year 1912)

The maximum daily rainfall reported during the month was 3.0 mm at Banha on the 16th, which was also the maximum monthly rainfall.

OTHER WEATHER PHENOMENA

Rising sand was reported during several days in scattered places in the Western Desert, Upper Egypt and the Red Sea districts.

Early morning mist diveloped during several days in scattered placas in Delta & Cairo area.

Cairo August 1975

Chairman (M. F. TAHA)

Board of Directors

SURFACE DATA

Table A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

JUNE 1973

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms. Mean
			Maximum		Minimum		$\frac{A+B}{2}$	Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	
Sallum	1013.6	+0.8	29.1	—0.6	20.4	+0.5	24.8	24.6	+0.1	18.9	—0.9	56	— 4	—	—	—	8.3
Mersa Matruh (A)	1013.6	+0.9	27.6	—0.6	18.9	+0.6	23.2	23.4	0.0	19.4	—0.2	59	—10	360.2	425.5	85	5.9
Alexandria (A)	1012.6	+0.8	27.9	—0.8	20.1	—0.1	24.0	23.8	—0.6	20.2	—0.3	71	+ 1	362.0	424.5	85	4.8
Port Said (A)	1010.7	—0.2	29.9	+1.3	21.6	—0.8	25.8	25.2	+0.2	20.5	—0.8	64	— 7	372.3	424.5	87	4.7
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1011.4	+0.4	32.4	—1.6	16.8	—0.3	24.6	24.4	—1.6	18.3	—1.3	52	—1	344.1	422.5	81	6.2
Cairo (A)	1011.3	+0.4	34.0	—0.8	19.7	—0.5	26.9	26.6	—0.6	19.1	—0.5	46	0	—	—	—	14.7
Fayoum	—	—	36.4	+0.3	19 1	—0.8	27.8	27.7	—0.9	19.2	—0.3	41	+ 2	—	—	—	9.9
Minya (A)	1010.1	+0.4	36.3	—0.3	18.8	—0.3	27.6	27.9	—0.1	18.7	—0.3	37	— 2	372.0	416.5	89	20.6
Assyout (A)	1009.6	+0.7	37.6	—0.2	20.9	—0.7	29.3	29.3	—0.7	18.3	+0.1	29	+ 2	—	—	—	19.9
Luxor (A)	1006.9	+0.1	41.3	+0.2	21.7	—1.0	31.5	31.7	—0.9	19.0	—0.3	25	+ 2	—	—	—	13.7
Aswan (A)	1006.5	+0.2	41.7	—0.4	24.2	+0.0	33.0	33.2	—0.6	17.3	—0.1	13	+ 1	—	—	—	30.6
Siwa	1012.1	+0.3	36.9	—0.5	19.9	+0.4	28.4	28.6	—0.8	18.3	+0.1	32	+ 3	347.6	419.3	82	13.9
Bahariya	1010.9	+0.2	36.3	—0.3	20.1	+0.4	28.2	28.3	—1.1	17.6	—0.9	30	— 1	—	—	—	13.6
Farafra	1011.6	+0.0	37.5	—0.2	20.3	0.0	28.9	29.2	—0.2	17.7	+0.6	26	+ 2	—	—	—	21.6
Dakhla	1010.0	+0.4	38.3	—0.2	21.3	—1.1	29.8	30.4	—0.6	17.4	—0 3	21	+ 1	—	—	—	25.0
Kharga	1008.5	+0.4	39.6	+0.3	24.4	+1.0	32.1	32.4	+0.2	17.8	0.0	17	— 4	368.6	409.5	90	19.6
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1007.3	+0.4	32.8	+0.6	24.0	+0.4	28.4	28.6	—0.1	21.3	+1.0	50	+ 7	376.1	413.7	90	13.0
Quseir	1007.2	—0.1	31.0	—1.3	25.0	—0.5	28.0	28.2	—0.8	20.2	—0.6	44	0	—	—	—	13.2

Table A 2.– MAXIMUM AND MINIMUM AIR TEMPERATURES

JUNE – 1973

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Sallum	40.7	9	24.1	1	28	7	2	1	0	19.7	—	24.1	24	18.4	3	0	0	0	0
Mersa Matruh (A)	35.4	10	24.0	1	26	3	2	0	0	17.3	—	23.4	10	14.6	2	0	0	0	0
Alexandria (A)	38.3	10	25.9	6	30	3	1	0	0	18.2	—	23.0	10	15.6	21	0	0	0	0
Port Said (A)	37.3	10	27.2	1	30	10	1	0	0	21.0	—	23.4	29	19.0	1	0	0	0	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tanta	39.0	10	29.0	17	30	27	5	0	0	—	—	21.8	10	13.5	1	0	0	0	0
Cairo (A)	42.0	10	31.2	19	30	30	7	2	0	—	—	26.4	10	17.5	7	0	0	0	0
Fayoum	43.4	10	33.0	18	30	30	20	4	0	16.8	—	22.9	11	16.6	18	0	0	0	0
Minya (A)	44.4	11	32.8	17	30	30	19	3	0	17.8	—	23.2	26	16.6	19	0	0	0	0
Assyout (A)	44.0	11	33.5	17	30	30	22	7	0	18.0	—	25.0	11	18.0	5	0	0	0	0
Luxor (A)	46.4	26	36.8	17	30	30	30	20	2	16.6	—	25.3	28	18.4	6	0	0	0	0
Aswan (A)	46.2	26	36.0	18	30	30	30	21	4	—	—	28.8	27	21.5	19	0	0	0	
Siwa	44.4	10	31.8	16	30	30	22	6	0	18.9	—	23.6	11	16.6	3	0	0	0	0
Bahariya	43.7	11	32.0	17	30	30	16	4	0	19.2	—	25.6	11	17.5	4	0	0	0	0
Farafra	44.5	10	33.9	28	30	30	24	6	0	19.3	—	24.6	11	17.0	4	0	0	0	0
Dakhla	44.5	11	33.8	17	30	30	24	10	0	20.9	—	26.9	10	16.4	1	0	0	3	0
Kharga	45.4	11	35.6	18	30	30	30	12	1	22.8	—	29.4	10	20.2	26	0	0	0	
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
Hurghada	37.7	11	31.0	8	30	30	3	0	0	—	—	27.5	27	21.5	4	0	0	0	0
Quseir	37.3	11	29.3	13,22	30	19	1	0	0	21.8	—	29.8	11	23.3	4	0	0	0	

Table A 3.—SKY COVER AND RAINFALL

JUNE 1973

STATION	Mean Sky Cover (Oct).					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	1.2	0.8	1.6	0.5	0.9	0 0	— 0.4	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	1.1	2.1	1.3	1.6	1.4	0.0	— 2.5	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	2.9	2.4	2.2	1.6	2.2	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Port Said (A)	0.5	0.6	0.2	0.5	0.5	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.2	1.2	1.4	0.3	0.7	2.4	+ 2.4	2.4	16	0	1	1	0	0	0	0
Cairo (A)	0.2	2.4	0.6	0.2	0.7	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.1	0.2	0.2	—	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Minya	0.0	0.0	0.3	0.2	0.1	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.0	0.0	0.0	0.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.0	0.1	0 2	0.0	0.1	0.0	—	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.0	0.1	0.3	0.2	0.2	0.0	—	0.0	—	0	0	0	0	0	0	0
Siwa	1.3	0.9	0.8	1.0	1.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Bahariya	0.1	0.3	0.1	0.2	0.2	0.0	— 0 2	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.0	0.1	0.1	—	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.0	0.0	0.0	0.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.0	0.1	0.0	0.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0 0	0.0	0 2	0.0	0.1	0.0	0.0	—	—	0	0	0	0	0	0	0
Quseir	0 0	0.2	0.2	0.2	0.1	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

JUNE — 1973

Station	Precipitation				Forst	Thunderstorm	Mist Vis ≥1000 metres	Fog Vis <1000 Metres	Haze Vis ≥1000 Metres	Thick Haze Vis <1000 Metres	Dust or Sandstorm Vis ≥1000 Metres	Dust or Sandstorm Vis <1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice, Pellets	Hail											
Sallum	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
Mersa Matruh (A)	0	0	0	0	0	0	1	0	0	0	5	0	0	20	0
Alexandria (A)	0	0	0	0	0	0	2	0	1	0	0	0	0	10	0
Port Said (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	2	0	0	0	0	0	0	29	0
Cairo (A)	0	0	0	0	0	0	10	2	11	0	3	0	0	27	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	0	0	3	0	10	0	0	30	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Luxor (A)	0	0	0	0	0	0	0	0	13	0	6	0	0	29	0
Aswan A)	0	0	0	0	0	0	0	0	3	0	11	0	0	29	0
Siwa	0	0	0	0	0	0	0	0	3	0	12	0	0	25	1
Bahariya	0	0	0	0	0	0	0	0	0	0	1	0	0	29	0
Farafra	0	0	0	0	0	0	0	0	0	0	1	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	8	0	0	30	0
Kharga	0	0	0	0	0	0	0	0	0	0	6	0	0	30	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	11	0	0	30	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0

TABLE A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

JUNE — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurences of wind owing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	16	4	0	1—10	45	100	89	58	23	8	7	2	4	24	56	98	514
				11—27	20	46	3	1	0	0	0	0	3	4	22	87	186
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**65**	**146**	**92**	**59**	**23**	**8**	**7**	**2**	**7**	**28**	**78**	**185**	**700**
Mersa Matruh . (A)	18	0	0	1—10	64	9	6	14	9	8	11	5	25	84	40	102	377
				11—27	47	8	5	0	0	0	0	3	2	2	27	231	325
				28—47	0	0	0	0	0	0	0	0	0	0	3	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**111**	**17**	**11**	**14**	**9**	**8**	**11**	**8**	**27**	**86**	**67**	**333**	**702**
Alexandria . . (A)	4	0	0	1—10	164	28	3	2	8	1	6	1	10	15	33	226	497
				11—27	36	5	1	0	0	0	0	0	0	2	32	143	219
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**200**	**33**	**4**	**2**	**8**	**1**	**6**	**1**	**10**	**17**	**65**	**369**	**716**
Tanta.	24	0	0	1—10	142	55	13	4	0	0	5	9	39	62	124	143	596
				11—27	50	17	2	0	0	0	0	0	0	0	6	25	100
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**192**	**72**	**15**	**4**	**0**	**0**	**5**	**9**	**39**	**62**	**130**	**168**	**696**
Cairo . . . . (A)	77	0	0	1—10	72	95	25	4	1	2	6	2	7	35	60	75	384
				11—27	84	55	4	0	1	0	0	0	0	18	28	69	259
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**156**	**150**	**29**	**4**	**2**	**2**	**6**	**2**	**7**	**53**	**88**	**144**	**643**
Fayoum	3	0	0	1—10	285	314	10	3	2	0	1	8	5	5	11	22	666
				11—27	0	49	2	0	0	0	0	0	0	0	0	0	51
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**285**	**363**	**12**	**3**	**2**	**0**	**1**	**8**	**5**	**5**	**11**	**22**	**717**
Minya . . . . (A)	5	2	0	1—10	157	68	2	0	0	2	6	1	3	10	8	21	278
				11—27	284	147	0	0	0	0	0	0	0	0	1	3	435
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**441**	**215**	**2**	**0**	**0**	**2**	**6**	**1**	**3**	**10**	**9**	**24**	**713**
Asyout . . . . (A)	5	0	0	1—10	34	6	1	0	0	5	1	1	2	65	148	123	386
				11—27	121	27	0	0	0	0	0	0	0	2	18	161	329
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**155**	**33**	**1**	**0**	**0**	**5**	**1**	**1**	**2**	**67**	**166**	**284**	**715**
Luxor . . . . (A)	81	0	0	1—10	78	51	10	13	15	25	56	35	27	65	148	79	602
				11—27	11	1	0	0	0	0	0	1	0	0	15	9	37
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**89**	**52**	**10**	**13**	**15**	**25**	**56**	**36**	**27**	**65**	**163**	**88**	**639**

Table A 5. *(contd.)*—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

JUNE — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indication												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Aswan . . . . (A)	38	0	0	1—10	126	37	2	0	2	5	6	5	6	7	39	161	396
				11—27	85	14	1	0	1	1	0	0	2	3	51	128	286
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	211	51	3	0	3	6	6	5	8	10	90	289	682
Siwa	31	2	0	1—10	25	148	110	97	36	7	5	3	4	29	47	67	578
				11—27	12	41	14	11	7	0	0	0	0	1	15	8	109
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	37	189	124	108	43	7	5	3	4	30	62	75	687
Dakhla	0	9	0	1—10	142	58	31	24	11	17	21	13	14	14	68	141	554
				11—27	66	57	5	0	0	0	0	0	0	0	4	25	157
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	208	115	36	24	11	17	21	13	14	14	72	166	711
Kharga	2	3	0	1—10	174	67	3	1	3	2	0	0	3	2	16	124	395
				11—27	212	42	0	0	0	0	0	0	0	0	0	66	320
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	386	109	3	1	3	2	0	0	3	2	16	190	715
Hurghada.	7	0	0	1—10	30	15	3	4	5	5	0	0	1	7	49	40	159
				11—27	240	21	0	0	0	0	0	0	0	1	57	226	545
				28—47	1	0	0	0	0	0	0	0	0	0	0	8	9
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	271	36	3	4	5	5	0	0	1	8	106	274	713
Quseir	2	0	0	1—10	125	22	4	8	4	1	3	1	7	13	48	127	363
				11—27	274	18	0	0	0	0	0	0	0	0	0	63	355
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	399	40	4	8	4	1	3	1	7	13	48	190	718

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

JUNE — 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 0000 U.T.	Surface	30	*1013m.b.	*1018m,b.	*1009m.b.	30	21.3	27.6	17.5	30	16.7
	1000	30	136	182	109	29	20.9	31.6	15.4	29	16.2
	850	30	1535	1572	1495	30	17.4	25.2	9.6	30	3.9
	700	30	3166	3237	3077	30	8.4	24.0	— 2.0	30	— 7.0
	600	30	4417	4518	4291	30	— 0.5	7.2	— 8.5	30	—14.0
	500	30	5848	6010	5687	30	—10.3	— 1.3	—17.7	30	—24.0
	400	30	7525	7738	7300	30	—23.0	—17.7	—31.1	30	—35.4
	300	30	9571	9828	9280	30	—37.1	—28.7	—45.8	29	—48.4
	250	28	10817	11090	10514	28	—44.1	—36.7	—52.1	28	—55.8
	200	29	12287	12573	12006	29	—51.6	—44.8	—59.3	26	—61.8
	150	26	14126	14391	13825	26	—59.6	—55.0	—64.7	13	—68.7
	100	8	16680	16805	16400	8	—71.7	—67.3	—75.7	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 UT	Surface	30	*995m.b.	*1000m,b.	*992m.b.	30	21.9	28.5	19.4	30	14.6
	1000	30	97	140	69	1	19.8	—	—	1	16.2
	850	30	1503	1534	1474	30	18.6	26.4	12.4	30	4.3
	700	29	3146	3189	3083	29	9.9	15.0	2.2	29	— 4.9
	600	29	4410	4467	4330	29	2.0	8.1	— 4.1	29	—13.2
	500	29	5856	5936	5766	29	— 8.1	— 2.3	—14.0	29	—22.8
	400	29	7551	7688	7439	29	—20.4	—12.6	—26.3	29	—34.6
	300	29	9622	9795	9471	29	—34.0	—26.8	—41.0	28	—46.8
	250	29	10878	11089	10734	29	—42.1	—37.3	—49.3	29	—59.7
	200	27	12367	12620	12151	27	—50.2	—44.3	—58.1	25	—61.1
	150	23	14219	14385	14059	23	—60.5	—56.9	—64.1	10	—68.0
	100	7	16749	16935	16651	7	—74.5	—71.0	—79.3	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 0000 UT	Surface	30	*985m.b.	*989m.b.	*982m.b.	30	27.7	32.8	23.6	30	3.4
	1000	30	61	97	32	—	—	—	—	—	—
	850	30	1499	1533	1467	39	24.2	29.5	18.0	29	1.0
	700	30	3160	3202	3123	30	12.1	14.5	8.3	30	—10.5
	600	28	4430	4475	4393	28	3.0	6.8	0.2	28	—16.1
	500	27	5892	5926	5838	27	— 6.5	— 2.2	—11.2	27	—25.4
	400	27	7590	7637	7537	27	—14.3	—13.5	—23.6	27	—36.1
	300	26	9683	9758	9618	26	—31.4	—28.8	—34.1	26	—47.9
	250	24	10950	11038	10872	24	—40.0	—36.4	—42.5	24	—55.1
	200	24	12443	12538	12348	24	—50.5	—46.5	—53.1	23	—63.7
	150	24	14263	14381	14150	24	—63.8	—60.1	—67.0	—	—
	100	4	16673	16691	16656	4	—75.7	—74.6	—76.5	—	—
	70	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

Table B 1 (*contd.*)—MONTHLY MEANS, ABSOLUTE HIGHER AND LOWER VALUES OF ALTITUDE, AIR TEMPERATURE AND DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

JUNE — 1973

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 1200 U.T.	Surface	30	1013mb.*	1018mb.*	1010mb.*	30	26.2	32.6	20.8	30	17.3
	1000	30	139	187	116	29	24.5	33.3	20.6	29	15.1
	850	30	1536	1582	1508	29	18.5	31.9	13.3	29	1.3
	700	30	3180	3259	3104	30	9.0	14.0	2.5	30	—10.5
	600	30	4440	4531	4342	29	0.4	5.0	— 6.6	29	—17.2
	500	30	5880	5982	5754	30	— 8.9	— 3.8	—16.0	30	—26.2
	400	30	7567	7686	7414	30	—21.2	—16.3	—27.9	30	—37.3
	300	29	9637	9777	9442	29	—35.3	—25.4	—43.1	29	—50.6
	250	29	10884	11055	10644	29	—43.3	—33.6	—53.1	28	—57.3
	200	28	12363	12577	12096	28	—50.3	—43.2	—66.4	27	—63.1
	150	27	14213	14443	13966	27	—57.7	—51.4	—62.4	18	—68.7
	100	25	16718	16922	16528	25	—66.8	—62.0	—73.8	—	—
	70	23	18878	19035	18754	23	—65.7	—61.2	—74.5	—	—
	60	22	19857	20000	19000	22	—62.1	—58.6	—69.0	—	—
	50	22	20954	21158	20824	22	—57.5	—54.9	—60.9	—	—
	40	20	22156	22360	22170	20	—53.5	—50.8	—55.0	—	—
	30	20	24234	24463	24051	20	—49.5	—44.1	—52.4	—	—
	20	12	26943	27150	26821	12	—44.6	—41.3	—49.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	30	995mb*	1000mb*	991mb*	30	32.4	40.2	28.8	30	10.6
	1000	80	92	140	58	1	30.2	—	—	1	5.6
	850	30	1520	1555	1494	30	19.5	27.2	15.1	30	9.3
	700	29	3165	3228	3121	28	10.8	16.0	5.1	28	—12.0
	600	29	4432	4496	4362	29	3.1	7.8	5.2	28	—18.7
	500	29	5853	5961	5813	29	— 6.7	— 2.5	—11.2	29	—28.5
	400	28	7590	7684	7488	28	—18.4	—11.7	—23.3	28	—38.4
	300	26	9681	9807	9592	26	—31.7	—25.9	—39.7	26	—49.6
	250	25	10948	11087	10814	25	—40.5	—36.0	—47.0	25	—56.7
	200	23	12456	12587	12275	22	—48.6	—44.5	—55.7	22	—63.0
	150	22	14304	14429	14124	22	—59.0	—55.1	—61.8	15	—71.5
	100	19	16720	16890	16646	19	—69.5	—62.2	—75.0	—	—
	70	16	18909	19011	18800	16	—67.1	—61.9	—72.7	—	—
	60	15	19896	20010	19780	15	—64.3	—60.3	—68.4	—	—
	50	15	20978	21075	20866	15	—59.1	—54.9	—64.7	—	—
	40	12	22472	22610	22380	12	—55.0	—52.0	—58.2	—	—
	30	12	24240	24348	24130	12	—51.2	—47.0	—53.9	—	—
	20	5	26898	26941	26847	5	—46.3	—42.9	—48.1	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface	30	985m.b.*	989m.b.*	981m.b.*	30	39.9	45.0	34.2	30	4.4
	1000	30	56	91	15	—	—	—	—	—	—
	850	30	1515	1557	1475	30	25.6	31.4	18.4	30	— 5.2
	700	29	3184	3235	3138	29	13.6	17.8	9.3	29	—14.9
	600	29	4460	4521	4401	29	4.0	6.6	1.9	28	—21.1
	500	29	5813	5979	5849	27	— 5.5	— 2.0	— 9.0	26	—29.8
	400	29	7631	7780	7502	29	—16.0	—11.3	—21.0	28	—38.6
	300	29	9745	9833	9675	29	—29.8	—25.8	—34.0	27	—50.7
	250	27	11053	11127	10946	27	—38.1	—35.1	—40.7	26	—57.2
	200	27	12526	12652	12437	27	—48.8	—45.5	—51.5	23	—65.7
	150	26	14305	14514	14257	26	—61.2	—57.1	—63.1	5	—73.8
	100	25	16796	17001	16629	25	—73.5	—67.5	—76.5	—	—
	70	22	18897	19181	18751	22	—70.3	—63.1	—76.8	—	—
	60	18	19874	20180	19740	18	—64.6	—60.6	—70.2	—	—
	50	18	20949	21283	20817	18	—59.5	—53.5	—63.7	—	—
	40	14	22434	22620	22200	14	—54.8	—49.8	—58.0	—	—
	30	12	24220	24388	24050	12	—50.3	—46.1	—57.4	—	—
	20	6	26883	27011	26743	6	—42.1	—37.5	—44.6	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = Number of observations of specified pressure surface.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

Table B 2.— MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE : THE HIGHEST WIND SPEED IN THE UPPER AIR

JUNE — 1973

	STATION	Freezing Level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mp.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitaed (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in knots
		(N)	(N)	(N)							(N)	(N)	(N)										
0000 U.T.	Mersa Matruh	4348 (37)	606 (30)	—13.7 (30)	5880	508	— 9.9	3020	703	—22.1	10850 (6)	247 (6)	—49.5 (6)	11910	209	—52.4	9270	301	—42.7	2210	791	005	47
0000 U.T.	Helwan	4719 (29)	579 (29)	—14.5 (29)	5640	518	—18.2	3770	648	— 6.5	7980 (1)	372 (1)	—27.0 (1)	—	—	—	—	—	—	9650	344	245	146
0000 U.T.	Aswan	4856 (27)	571 (27)	—18.3 (27)	5470	528	—25.9	4460	598	—11.7	—	—	—	—	—	—	—	—	—	2440	782	040	44
		(N)	(N)	(N)							(N)	(N)	(N)										
1200 U.T.	Mersa Matruh	4582 (30)	587 (30)	—17.9 (30)	5430	534	—15.5	3600	661	—12.8	14497 (25)	155 (23)	—61.2 (23)	17250	083	—68.6	8960	325	—38.4	5740	507	260	144
1200 U.T.	Helwan	4918 (29)	567 (29)	—20.9 (29)	5670	519	—23.5	3820	642	— 8.9	16144 (16)	116 (16)	—68.2 (16)	17930	084	—75.0	11500	226	— 50.7	12860	185	240	145
1200 U.T.	Aswan	5049 (29)	559 (29)	—23.9 (29)	5630	521	—29.0	4680	583	—70.7	16620 (20)	104 (20)	—74.0 (20)	17840	084	—77.5	15600	124	—71.0	12125	212	255	85

N = The number of cases the element has been observed during the month.

Table B 3. *(contd.)*—**NUMBER OF OCCURRENCES OF WIND DIRECTION WITHEN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**

MERSA MATRUH (A) — JUNE 1973

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000 - 360°)																								Number of Calm winds	Total Number of Observations (T N)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Suface	4	8	0	—	1	20	1	8	0	—	1	5	0	—	2	4	4	6	3	9	2	6	10	11	2	30	8
	1000	1	8	1	7	0	—	2	14	0	—	1	10	0	—	1	16	1	8	4	12	10	17	7	18	0	28	15
	850	5	24	2	18	1	7	0	—	0	—	0	—	0	—	0	—	0	—	7	22	6	19	7	24	0	28	21
	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	4	10	2	11	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	15	19	15	0	30	14
	1000	3	12	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	12	23	12	22	0	28	21
	850	8	24	1	9	1	26	0	—	0	—	0	—	0	—	1	12	2	24	1	27	6	23	7	18	0	27	21
	700	5	37	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	7	30	6	30	8	27	0	27	30
	600	4	39	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	22	10	29	5	42	7	28	0	27	32
	500	3	31	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	20	8	45	8	35	4	29	0	26	36
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	21	5	35	9	34	4	36	3	41	0	22	35
	300	1	44	0	—	0	—	0	—	0	—	0	—	0	—	3	48	4	46	7	42	2	37	1	20	0	18	42
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	60	4	42	2	51	3	39	0	—	0	14	49
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	48	4	47	2	23	0	—	0	—	0	11	43
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	43	3	54	1	34	0	—	0	—	0	7	47
	100	0	—	0	—	0	—	0	—	0	—	0	—	1	32	1	31	1	34	1	29	2	30	0	—	0	6	31
	70	0	—	0	—	0	—	0	—	1	18	3	28	0	—	0	—	1	17	0	—	0	—	0	—	0	5	24
	60	0	—	0	—	0	—	1	14	1	22	1	28	0	—	0	—	0	—	0	—	0	—	1	12	0	4	19
	50	0	—	0	—	0	—	1	28	2	18	0	—	0	—	0	—	1	11	0	—	0	—	0	—	0	4	19
	40	0	—	0	—	0	—	0	—	3	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	25
	30	0	—	0	—	0	—	2	26	1	33	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	29
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.
TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3. *(contd.)*—**NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**

HELWAN — JUNE 1973

Time	Pressure Surface (Millibar.)	Wind between specified ranges of directon (000—360°)																						Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	13	7	11	9	1	4	1	1	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	5	0	30	7
	1000	0	—	1	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	14
	850	6	16	12	21	1	21	0	—	1	9	0	—	0	—	0	—	0	—	1	7	2	29	7	19	0	3)	20
	700	7	22	5	21	0	—	0	—	1	20	1	16	0	—	0	—	1	10	2	22	7	33	4	10	0	28	22
	600	3	12	2	23	0	—	0	—	0	—	0	—	0	—	1	23	2	14	4	14	10	36	5	21	0	27	24
	500	1	14	2	27	0	—	1	14	0	—	0	—	0	—	0	—	5	21	7	22	8	29	2	51	0	26	26
	400	1	21	1	30	0	—	0	—	1	35	0	—	1	19	1	12	2	27	5	43	9	29	1	48	0	22	32
	300	0	—	0	—	0	14	0	—	0	—	1	20	0	—	3	15	8	61	2	54	4	34	4	37	0	22	43
	250	0	—	0	—	1	—	0	—	0	—	0	—	0	—	1	24	6	39	3	47	3	51	0	—	0	14	40
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	19	5	46	3	36	2	37	0	—	0	13	36
	150	0	—	0	—	0	—	0	—	0	—	0	—	2	16	1	90	3	38	1	70	0	—	0	—	0	7	44
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	9	10	7	11	0	—	0	—	0	—	0	—	0	—	0	—	1	7	2	7	1	7	10	8	0	30	9
	1000	1	15	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	15
	850	7	18	9	20	6	13	0	—	0	—	0	—	0	—	0	—	0	—	1	24	2	16	5	11	0	30	18
	700	4	10	3	22	2	24	0	—	0	—	1	13	0	—	0	—	2	16	6	9	5	39	5	17	0	28	19
	600	3	26	5	13	0	—	0	—	0	—	0	—	0	—	0	—	2	16	9	22	4	40	4	20	1	27	23
	500	2	9	4	26	0	—	0	—	0	—	0	—	0	—	0	—	4	22	6	24	5	36	4	21	0	25	24
	400	0	—	1	36	0	—	0	—	1	10	0	—	0	—	1	32	3	44	8	37	5	24	2	20	0	21	31
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	19	11	44	5	48	1	48	1	8	0	19	42
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	5	63	5	29	2	28	0	—	0	13	40
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	40	5	50	0	—	2	68	0	—	0	11	49
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	35	1	38	3	43	0	—	0	—	0	9	38
	100	0	—	0	—	0	—	0	—	1	29	0	—	2	28	2	45	0	—	2	35	0	—	0	—	0	7	35
	70	0	—	0	—	0	—	1	21	1	20	0	—	1	20	0	—	0	—	0	—	1	31	1	20	0	5	22
	60	0	—	0	—	1	39	2	36	1	19	1	26	0	—	0	—	0	—	0	—	0	—	0	—	0	5	31
	50	0	—	0	—	1	22	0	—	3	27	0	—	1	18	0	—	0	—	0	—	0	—	0	—	0	5	24
	40	0	—	1	22	0	—	1	14	3	27	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	24
	30	0	—	0	—	0	—	0	—	2	25	2	30	0	—	0	—	0	—	0	—	0	—	0	—	0	4	28
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN=The total number of cases the wind has been observed for all directions during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A)— JUNE 1973

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000—360)°																								Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	18	11	3	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	14	7	12	0	30	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	4	22	9	17	1	12	0	—	0	—	0	—	0	—	0	—	1	4	3	12	2	16	10	19	0	30	17
	700	0	—	0	—	1	12	0	—	0	—	0	—	0	—	0	—	1	16	3	30	1	14	1	17	0	7	21
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	17	11	0	—	0	—	0	—	0	—	2	11	0	—	1	4	1	7	0	—	1	15	6	11	2	30	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	5	13	4	22	0	—	0	—	0	—	0	—	0	—	1	11	6	8	1	19	6	12	7	17	0	30	14
	700	1	8	1	13	2	16	0	—	1	6	0	—	2	10	2	8	9	20	4	19	3	17	4	24	0	29	17
	600	2	12	2	16	2	12	0	—	0	—	0	—	1	9	6	19	5	28	4	22	4	20	3	21	0	29	19
	500	1	15	2	10	1	14	2	10	0	—	0	—	2	8	3	32	5	23	7	17	1	10	2	20	0	26	18
	400	2	9	0	—	1	7	1	7	2	14	0	—	1	3	2	32	4	30	2	16	3	20	2	25	0	20	19
	300	0	—	0	—	1	6	0	—	2	14	0	—	2	12	2	26	4	46	4	34	0	—	0	—	0	15	29
	250	0	—	0	—	0	—	0	—	0	—	3	15	1	10	2	53	4	47	2	38	0	—	0	—	0	12	36
	200	0	—	0	—	0	—	0	—	1	12	3	21	1	47	1	34	3	52	1	41	0	—	0	—	0	10	35
	150	0	—	0	—	0	—	0	—	3	24	2	26	0	—	0	—	1	59	0	—	0	—	0	—	0	6	31
	100	0	—	0	—	0	—	0	—	1	29	1	64	0	—	1	24	0	—	0	—	1	18	0	—	0	4	34
	70	0	—	0	—	1	10	0	—	1	33	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	22
	60	0	—	0	—	0	—	1	16	1	29	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	22
	50	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	20
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = number of cases the wind has been observed for all directions during the month.

TN = The number of cases the elemne has been observed during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — JUNE 1973

This month was rather normal as regards the mean daily air temperature and relative humidity.

Mild weather prevailed the whole month apart from two short heat waves on the (*9th* & *10th*) and the *20th*. The first heat wave yielded both the highest maximum air temperature for the month (35.4°C) and the highest minimum air temperature (23.4°C) on the *10th*.

The highest maximum soil temperatures were higher than the corresponding values of last June at 2, 5, 10, 100 cm. depths ; lower at 20 cm. depth and the same as last June at 50 cm. depth. All the departures were slight and varied between 0.1° and 0.3°C. The lowest minimum soil temperatures were lower than the corresponding values of last June at 2 and 10 cm. depths by 1.8°C and 0.8°C respectively ; higher at 20 and 100 cm. depths by 0.1°C and 1.0°C respectively ; and the same as last June at 5, 50 cm. depths.

The mean daily actual sunshine duration was higher than normal by 0.5 hour. The mean daily wind speed at 1.5 met. was higher by only 0.1 m./sec. than the corresponding value of June 1972.

TAHRIR — JUNE 1973

For the month as a whole the mean daily air temperature was below normal and the mean daily relative humidity was slightly above normal.

The month was intervened by two heat waves in the periods (*6th* — *11th*) and (*23rd* — *25th*). The first heat wave yielded the highest maximum air temperature for the month (42.9°C) together with the lowest relative humidity (16%) and the highest daily pan evoporation (18.29 mm.) on the *10th* and the highest minimum air temperature (21.9°C) on the *11th*. Apart from these heat waves, mild summer weather was experienced.

The highest maximum soil temperature was the same as last June at 2cm. depth ; but higher at 5 & 10 cm. depths and lower than last June at depths between 20 & 100 cm. with departures between 0.3° and 0.8°C. The lowest minimum soil temperature was higher than last June at 2 & 50 cm. depths, lower at depths between 5 & 20 cm. and the same as June at 100 cm. The departures were slight and varied between 0.1° and 0.8°C.

The mean daily actual sunshine duration was the same as normal. The mean daily wind speed at 1.5 met. and pan evaporation were lower than normal by 0.5 m./sec. and 1.85 mm. respectively.

BAHTIM — JUNE 1973

For the month as a whole the mean daily air temperature was below average and the mean daily relative humidity was nearly the same as average.

The month was intervened by two heat waves in the periods (*9th* — *11th*) and (*23rd* — *25th*). The first heat wave yielded the highest maximum air temperature for the month (42.0°C), the highest minimum air temperature (2.0.5°C), the lowest relative humidity (16%) and the highest daily pan evoporation (18.04 mm.) on the *10th*. Apart from these heat waves mild weather prevailed.

The highest maximum soil temperatures were lower than the corresponding values of last June. at all depths apart from 100 cm. where the value was the same as last June ; the departures varied between 1.4°C (at 10 cm.) and 0.1°C (at 50 cm). The lowest minimum soil temperatures were lower than last June at 2,5 cm. depths by 1.1°C and 0.2°C respectively ; but higher than last June at other repths between 10 and 100 cm. with slight departures between 0.1° and 0.4°C.

The mean daily actual sunshine duration was the same as average. The mean daily wind speed at 1.5 met. and pan evaporation were lower than average by 0.5 m./sec. and 0.63 mm. respectively.

KHARGA — JUNE 1973

This month was rather normal as regards the mean daily air temperature and relative humidity.

The month was characterized by three heat waves in the periods (1*st* — 3*rd*), (9*th* — 14*th*) and (23*rd* — 26*th*). The second heat wave yielded the highest maximum air temperature for the month (45.4°C) on the 11*th* and the highest minimum air temperature (29.4°C) on the 10*th*. In the rest of the month mild summer weather was experienced.

The highest maximum soil temperatures were higher than the corresponding values of last June at all depths except at 50 and 100 cm. where the values were the same as last June ; the departures varied between 4.8°C (at 5 cm.) and 2.8°C (at 20 cm.).

The lowest minimum soil temperatures were also higher than the corresponding values of last June at all depths except at 100 cm. where its values was the same as last June ; the departures varied between 3.4°C (at 2. cm.) and 0.1°C (at 50 cm).

The mean daily values of actual sunshine duration, wind speed at 1.5 met. and pan evoporation showed slight departures below the corresponding normal values.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

JUNE — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	—5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Mersa Matruh. . .	27.6	18.9	23.4	21.2	24.2	24.0	24.0	24.0	24.0	23.9	20.9	6.8	0.5	0.0	0.0	0.0
Tahrir	34.4	17.5	25.1	20.8	26.8	24.0	24.0	24.0	24.0	23.8	18 9	11.4	5.3	0.7	0.1	0.0
Bahtim	33.7	16.5	24 8	20.3	26.7	24.0	24.0	24.0	24.0	23.3	17.6	11.3	5.8	0.8	0.1	0 0.
Kharga.	39.6	24.4	32.4	29.3	33.5	24.0	24.0	24.0	24.0	24.0	24.0	22.4	15.6	7.6	1 9	0.0

Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS.

JUNE — 1973

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Mersa Matruh . . .	35.4	10	24.0	1	23.4	10	14.6	2	11.4	2	—	—
Tahrir	42.9	10	31.4	16	21.9	11	13.8	1	13.0	1	11.7	5
Bahtim.	42.0	10	30.8	18	20.5	10	13.4	3	9.6	5	8.4	5
Kharga	45.4	11	35.6	18	29.4	10	20.2	26	18.2	18	—	—

Table C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL

JUNE — 1973

STATION	(Solar+Sky) Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day	Date
M.Matruh	597.6	360.2	425.5	85	70	61	17	9	15.0	15.3	22.5	20	7.3	9	5.9	—	0.0	0.0	—
Tahrir. .	652.9	366.7	422.3	87	61	34	16	10	13.7	12.3	20.4	25	9.1	10	7.3	11.10	0.0	0.0	—
Bahtim .	672.8	360.8	421.8	86	56	31	16	10	12.2	11.2	18.0	25	8.3	8	11.5	12.43	0.0	0.0	—
Kharga .	701.0	368.6	409.5	90	24	16	5	23	8.1	7.9	13.4	29	3.0	23	19.6	23.08	0.0	0.0	—

Table C. 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms) IN DIFFERENT FIELDS

JUNE 1973

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
Mersa Matruoh . .	H	40.9	38.2	33.9	30.0	27.8	25.2	22.3	—	—	—	—	—	—	—	—	—
	L	20.2	21.0	20.2	23.4	24.0	23.0	21.0	—	—	—	—	—	—	—	—	—
Tahrir	H	33.8	47.7	41.9	35.8	31.8	29.6	27.1	25.8	34.2	32.8	30.8	28.6	27.5	26.2	25.2	—
	L	27.6	25.7	25.0	27.4	28.4	27 2	24.9	24.1	20.9	21.6	22.0	22.6	24.0	24.0	23.2	—
Bahtim	H	55.4	46.7	38.6	32.7	30.1	27.8	24.9	23 9	33.7	30.6	27.8	26.8	24 6	23.1	21.1	—
	L	27.4	26.2	26.4	28.6	27.7	25.6	23.6	23.2	21.2	21.0	21.6	22.7	22.7	21.5	19.9	—
Kharga	H	58.5	54.0	46.8	40.0	34.4	31.7	29.2	28.1	—	—	—	—	—	—	—	—
	L	23.1	26.0	28.2	31.4	31.5	30.0	27.7	27.3	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

JUNE 1973

STATION	Wind Speed m/sec at 1.5 metres			Days with surface wind speed at 10 metres							Max. Gus)t. at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	value	Date
Marsa Matrouh	4.0	2.7	5.2	30	27	14	4	2	0	0	39	10
Tahrir	2.0	1.4	2.7	30	10	0	0	0	0	0	26	10
Bahtim	2.3	1.3	3.4	30	25	3	0	0	0	0	30	21
Kharga	4.9	4.0	5.7	30	24	11	1	0	0	0	32	20,21

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VOLUME 16 NUMBER 7

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT — CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues serveral reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :
"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields

THE ARAB REPUBLIC OF EGYPT

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on the tables please refer to Volume 16, Number 1 (January 1973).

GENERAL SUMMARY OF WEATHER CONDITIONS

JULY 1973

Generally mild summer weather during the first half, hot during the second. Excessively humid most of the month in the north.

PRESSURE DISTRIBUTION

During the month the surface pressure distribution was of the normal summer type. It was mainly influenced by the extension of the monsoon trough and the high pressure over Central Mediterranean and Libya.

The monsoon trough extended ponouncedly through Asia Minor and the East Mediterrenean mainly during the periods (17*th* - 21*st*) and (25*th* - 29*th*) giving rise to heat waves.

SURFACE WIND

Light to moderate NE ly to NW ly winds prevailed most of the month. Winds freshened during few days in scattered localities mainly in the Red Sea and Upper Egypt districts .

TEMPERATURE

Mild summer weather was enjoyed in general during the first half of the month.

The second half of the month was characterized by two intense heat waves, which were associated with high humidity in the northern parts.

Cairo August 1975

Maximum air temperatures were mostly below normal during the first half of the month and pronouncedly above normal during the second half.

The highest and lowest maximum air temperatures reported were 47.0°C at Kom Ombo on the 30*th* & 26.4°C at Balteam on the 8*th* respectively.

Minimum air temperatures were below normal during the first week and above normal otherwise. Departures from normal were slight to moderate in general.

The highest and lowest minimum air temperatures reported were 30.8°C at Kharga on the 27th & 15.9°C at Bahtim on the 31*st* respectively.

PRECIPITAEION

No rainfall was reported as normal.

OTHER WEATHER PHENOMENA

Early morning mist developed during several days over scattered places in Delta, Canal zone and Cairo area.

Light rising sand was reported in few days over scattered places in the Western Desert, Upper Egypt and Red Sea districts.

Chairman (M. F. TAHA.)
Board of Directors

SURFACE DATA

Table A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURNOITE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

JULY 1973

Station	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation (mms.)
			Maximum		Minimum			Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F.Normal or Average	(B) Mean	D.F.Normal or Average	$\frac{A+B}{2}$	Mean	D.F.Normal or Average	Mean	D.F.Normal or Average	Mean	D.F.Normal or Average	Total Actual	Total Possible	%	Mean
Sallum	1009.4	—1.1	31.6	+0.8	22.1	+0.8	26.9	26.5	+0.6	21.8	+0.6	67	+3	—	—	—	8.2
Mersa Matruh(A)	1009.6	—0.4	29.3	+0.2	21.3	+0.9	25.3	25.5	+0.6	22.5	+1.0	78	+5	380.0	433.9	88	3.7
Alexandria. (A)	1008.8	+0.1	30.6	+0.8	22.9	+0.3	26.8	26.3	+0.3	22.7	+0.4	73	+1	381.8	432.2	88	4.8
Port Said. (A)	1006.7	—0.9	32.1	+1.7	23.7	—0.3	27.9	27.4	+1.0	23.1	+0.1	69	—3	382.3	432.2	88	4.9
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1007.9	—0.5	33.0	—1.2	19.2	+0.3	26.1	25.7	—0.5	21.5	+0.1	70	+7	357.2	431.4	82	4.6
Cairo. (A)	1007.7	—0.4	35.2	+0.2	21.8	+0.3	28.5	28.2	+0.4	21.7	+0.5	57	+3	—	—	—	12.1
Fayoum	—	—	38.7	+2.0	20.5	—0.8	29.6	29.4	+0.8	21.2	+0.5	49	+3	—	—	—	9.8
Minya. (A)	1006.7	—0.3	37.6	+0.9	20.6	+0.4	29.1	29.3	+0.9	21.0	+0.8	48	+4	390.2	425.5	91	18.2
Assyout. (A)	1006.0	—0.8	37.5	+0.8	22.9	+0.7	30.2	30.3	+0.7	19.9	+0.4	36	+1	—	—	—	18.1
Luxor. (A)	1004.2	—0.7	42.0	+1.5	23.6	—0.0	32.8	33.0	+0.3	20.3	+0.4	28	+2	—	—	—	14.3
Aswan. (A)	1004.2	—0.7	42.1	+0.9	26.0	+1.5	34.1	34.3	+0.8	18.5	+0.4	17	+1	—	—	—	25.9
Siwa	1009.1	—0.6	38.8	+1.0	21.8	+1.0	30.3	30.6	+1.0	20.2	+0.8	38	+5	381.1	427.4	89	15.3
Bahariya	1007.4	—0.9	38.6	+1.7	22.2	+1.5	30.4	30.6	+1.1	19.5	+0.0	34	—1	—	—	—	14.6
Farafra.	1008.3	—1.3	39.0	+1.9	22.2	+1.0	30.6	31.1	+1.5	19.3	+1.5	30	+4	—	—	—	15.3
Dakhla.	1007.1	—0.5	39.7	+1.2	22.7	—0.1	31.2	31.8	+0.8	18.1	—0.2	22	—1	—	—	—	24.1
Kharga.	1005.6	—0.6	40.6	+1.3	25.1	+1.8	32.9	33.5	+1.7	18.6	+0.3	24	+0	379.8	419 0	91	19.9
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada.	1003.6	—0.9	34.3	+1.4	25.7	+0.8	30.0	30.1	+0.6	23.4	+2.0	55	+8	393.0	422.9	92	11.4
Quseir.	1004.1	—1.0	32.2	—0.8	25.7	—0.5	29.0	29.4	—0.2	22.0	—0.1	50	+1	—	—	—	10.7

Note . Strting brom July 1973 the monthly mean Values of thc relative humidty are the arithmetic means over the month of their corresponding daily hourly values or of their corresponding values at the 8 rynortic hornio (00.03.06.9.12.18.&21 U.T.)

Table A 2.—MAXIMUM & MINIMUM AIR TEMPERATURE

JULY — 1973

Station	Maximum Temperature									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	V-5
Sallum	40.8	31	26.8	5	31	23	4	1	0	21.3	—	25.3	28	19.1	1	0	0	0	0
Mersa Matruh . (A)	37.7	28	26.5	6	31	8	1	0	0	20.4	—	23.8	29	18.6	5	0	0	0	0
Alexandria . . . (A)	34.6	21	28.2	6	31	18	0	0	0	20.4	—	24.8	24	18.9	4	0	0	0	0
Port Said . . . (A)	36.4	21	29.7	14	31	29	1	0	0	23.2	—	25.6	28	22.3	9	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	38,8	18	29.7	14	31	29	6	0	0	—	—	22.1	26	17.3	5	0	0	0	0
Cairo . . . . . (A)	40.2	21	31.4	14	31	31	14	1	0	—	—	24.5	29	19.5	2	0	0	0	0
Fayoum	44.9	21	35.1	6	31	31	31	10	0	18.8	—	23.0	22	18.1	9	0	0	0	0
Minya . . . . . (A)	43.6	29	34.0	9	31	31	27	5	0	19.7	—	23.5	22.26	18.0	5	0	0	0	0
Assyout . . . . (A)	42.5	26	33.9	8	31	31	26	5	0	19.8	—	25.2	26	20.3	1.2.8	0	0	0	0
Luxor . . . . . (A)	46.5	27	37.6	7	31	31	31	22	5	18.0	—	27.8	31	20.7	3	0	0	0	0
Aswan . . . . . (A)	46.8	30	37.2	7	31	31	31	19	4	—	—	30.0	30.31	23.0	1	0	0	0	0
Siwa	45.2	25	35.2	3.4.6	31	31	31	12	1	21.0	—	24.4	21	18.2	4	0	0	0	0
Bahariya	44.0	29	34.4	8	31	31	29	9	0	21.4	—	25.9	26	19.6	1.7	0	0	0	0
Farafra	44.7	29	34.6	8	31	31	30	10	0	21.9	—	25.7	26	18.4	12	0	0	0	0
Dakhla	45.2	29	35.4	7	31	31	31	13	2	22,9	—	28.8	26.27	16.0	15	0	0	0	0
Kharga	45.6	29	36.0	7	31	31	31	16	3	23.5	—	30.8	27	20.4	20	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	40.8	29	31.2	16	31	31	11	1	0	—	—	30.0	26.27	22.5	11	0	0	0	0
Quseir	36.1	29	30.0	7	31	30	2	0	0	20.9	—	28.5	29	22.7	16	0	0	0	0

Table A 8.–SKY COVER AND RAIN FALL

JULY — 1973

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	>5.0	≥10	≥25	≥50
Sallum	1.4	0.5	1.7	0.4	0.8	0.0	—Trace	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	0.7	2.3	0.9	1.9	1.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Alexandria . . (A)	2.4	1.4	1.2	1.1	1.5	0.0	—Trace	0.0	—	0	0	0	0	0	0	0
Port Said . . (A)	0.5	1.1	0.1	0.1	0.4	0.0	0.0	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	0.0	1.5	0.3	0.0	0.4	0.0	—Trace	0.0	—	0	0	0	0	0	0	0
Cairo. . . . . (A)	0.5	2.3	0.2	0.2	0.7	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.2	0.0	0.1	—	0.0	—Trace	0.0	—	0	0	0	0	0	0	0
Minya . . . . (A)	0.1	0.3	0.2	0.3	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Assyout . . . (A)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Luxor . . . . (A)	0.3	0.7	0.7	0.4	0.6	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan . . . . (A)	0.1	0.7	1.2	0.6	0.6	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	0.0	0.2	0.1	0.2	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Bahariya	0.0	0.2	0.2	0.4	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.0	0.0	0.1	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.2	0.4	0.4	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Kharga	0.2	0.3	0.5	0.3	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.1	0.3	0.3	0.5	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.2	0.8	0.6	0.5	0.5	0.0	0.0	0.0	—	0	0	0	0	0	0	0

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

JULY — 1973

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 Metres	Fog Vis <1000 metres	Haze Vis ≥1 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice. Pellets	Hail											
Sallum	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0
Mersa Matruh . . . (A)	0	0	0	0	0	0	13	1	3	0	9	0	0	22	0
Alexandira . . . . (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
Port Said . . . . (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	12	0	0	0	0	0	0	31	0
Cairo . . . . . (A)	0	0	0	0	0	0	16	4	7	0	1	0	0	31	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya . . . . . (A)	0	0	0	0	0	0	2	0	6	0	3	0	0	31	0
Assyout. . . . . (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Luxor . . . . . (A)	0	0	0	0	0	0	0	0	7	0	3	0	0	28	0
Aswan . . . . . (A)	0	0	0	0	0	0	0	0	0	0	6	0	0	26	0
Siwa	0	0	0	0	0	0	0	0	1	0	6	0	0	31	0
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Farafra	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	3	0	0	30	0
Kharga	0	0	0	0	0	0	0	0	0	0	2	0	0	29	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	5	0	0	29	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

JULY - 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	0	1	0	1—10	38	137	39	18	20	6	9	8	10	20	63	131	499
				11—27	7	28	2	0	0	0	0	0	0	1	41	165	244
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**45**	**165**	**41**	**18**	**20**	**6**	**9**	**8**	**10**	**21**	**104**	**296**	**743**
Mersa Matruh	9	0	1	1—10	23	8	0	4	4	0	10	4	22	134	95	116	420
				11—27	20	3	1	0	0	1	1	0	0	1	82	205	314
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**43**	**11**	**1**	**4**	**4**	**1**	**11**	**4**	**22**	**135**	**177**	**321**	**734**
Alexandria	2	0	0	1—10	120	7	1	3	1	5	3	3	8	15	76	295	537
				11—27	26	0	0	0	0	0	0	0	0	1	25	153	205
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**146**	**7**	**1**	**3**	**1**	**5**	**3**	**3**	**8**	**16**	**101**	**448**	**742**
Tanta	25	0	0	1—10	120	38	8	1	3	3	1	14	57	91	180	145	661
				11—27	23	0	0	0	0	0	0	0	0	0	1	34	58
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**143**	**38**	**8**	**1**	**3**	**3**	**1**	**14**	**57**	**91**	**181**	**179**	**719**
Cairo	98	0	0	1—10	75	65	20	9	0	0	0	0	7	58	113	120	467
				11—27	43	4	0	1	0	0	0	0	0	7	37	87	179
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**118**	**69**	**20**	**10**	**0**	**0**	**0**	**0**	**7**	**65**	**150**	**207**	**646**
Fayoum	0	0	0	1—10	191	449	13	3	1	0	1	2	2	7	16	53	738
				11—27	0	6	0	0	0	0	0	0	0	0	0	0	6
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**191**	**455**	**13**	**3**	**1**	**0**	**1**	**2**	**2**	**7**	**16**	**53**	**744**
Minya	0	1	0	1—10	325	114	2	1	0	1	0	1	0	0	2	32	478
				11—27	184	78	0	0	0	0	0	0	0	0	0	3	265
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**509**	**192**	**2**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**2**	**35**	**743**
Asyout(A)	21	0	0	1—10	46	7	0	0	0	0	0	0	0	41	216	237	547
				11—27	42	3	0	0	0	0	0	0	0	0	3	128	176
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**88**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**41**	**219**	**365**	**723**

Table A 5 (*contd.*)—**NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES**

JULY — 1973

Station	Calm (hours)	Variable (ho	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Louxor	117	0	0	1—10	61	14	4	11	8	23	57	50	48	102	126	120	624
				11—27	0	0	1	0	0	0	1	0	0	0	1	0	3
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	61	14	5	11	8	23	58	50	48	102	127	120	627
Aswan	55	0	0	1—10	74	62	10	3	2	8	14	8	21	46	96	167	511
				11—27	23	10	7	0	0	2	6	2	6	10	47	72	178
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	97	72	10	3	2	10	20	10	27	56	143	239	689
Siwa	28	0	0	1—10	34	158	95	51	21	14	10	7	8	20	66	141	625
				11—27	1	58	2	1	0	0	9	0	0	0	1	28	91
				28—47	0	0	0	0	0	0	4	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	35	216	97	52	21	14	10	7	8	20	67	169	716
Dakhla	0	13	0	1—10	124	21	6	12	5	5	10	23	46	59	105	206	622
				11—27	49	17	0	0	0	0	0	0	0	0	1	42	109
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				>48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	173	38	6	12	5	5	10	23	46	59	106	248	731
Kharga	0	1	0	1—10	320	57	7	6	6	0	3	4	5	18	44	170	630
				11—27	76	7	0	0	0	0	0	0	0	0	0	20	103
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				>48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	396	64	7	6	6	0	3	4	5	18	44	190	743
Hurghada	24	0	0	1—10	46	71	18	5	3	25	11	2	0	3	57	109	350
				11—27	187	25	1	0	0	0	0	0	0	0	10	147	370
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	233	96	19	5	3	25	11	2	0	3	67	256	720
Quseir	7	3	0	1—10	170	55	33	20	14	10	20	22	13	20	59	128	564
				11—27	149	9	0	0	0	0	0	0	0	0	0	12	170
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				>48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	319	64	33	20	14	10	20	22	13	20	59	140	734

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

JULY —1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm.)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 0000 U.T.	Surface	22	*1010mb.	*1013mb.	*1006mb.	22	23.5	26.0	20.5	22	20.3
	1000	22	115	140	80	22	22.9	25.9	20.2	22	20.0
	850	22	1530	1551	1498	22	20.2	24.2	12.9	22	— 4.7
	700	22	3178	3221	3120	22	10.0	14.8	— 3.3	22	— 9.9
	600	22	4440	4503	4367	22	2.8	8.4	— 1.5	22	—14.4
	500	22	5889	5964	5792	22	— 6.7	— 2.3	—10.0	22	—23.1
	400	22	7001	7091	7482	22	—16.5	—13.0	—20.1	22	—31.7
	300	20	9717	9816	9567	20	—28.7	—26.0	—30.7	20	—42.8
	250	21	10996	11113	10843	21	—37.7	—34.8	—40.0	21	—50.6
	200	20	12505	12588	12343	20	—48.4	—43.1	—51.0	20	—60.4
	150	18	14327	14489	14103	18	—60.4	—57.8	—63.4	7	—65.3
	100	17	16787	16959	16552	17	—72.9	—68.8	—79 0	—	—
	70	10	18833	19069	18815	10	—69.6	—62.9	—72.8	—	—
	60	10	19882	20040	19680	10	—66.5	—63.1	—71.7	—	—
	50	10	20975	21139	20840	10	—60.6	—57.2	—63.0	—	—
	40	7	22404	22620	22100	7	—56.1	—51.8	—60 0	—	—
	30	7	24076	24409	23339	7	—50.8	—42.3	—55.5	—	—
	20	3	26835	27012	26672	3	—45.4	—45.3	—50.6	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	31	*992 mb.	*996mb.	*988mb.	31	24.2	28.4	21.4	31	17.2
	1000	30	67	108	34	—	—	—	—	—	—
	850	30	1486	1513	1452	30	21.0	27.7	—16.4	30	— 4.7
	700	30	3137	3179	3095	30	11.6	13.8	— 7.9	30	— 7.5
	600	30	4472	4473	4368	30	— 4.5	8.1	— 1.3	30	—15.7
	500	29	5889	5934	5837	29	— 3.5	— 1.2	— 7.0	29	—23.2
	400	29	7610	7676	7545	29	—13.6	— 9.5	—16.3	29	—31.8
	300	27	9741	9827	9667	27	—27.2	—25.3	—29.1	27	—43.6
	250	26	11031	11072	10757	26	—36.8	—34.0	—38.7	25	—51.1
	200	25	12539	12629	12461	25	—48.2	—45.3	—19.8	24	—60.6
	150	23	14381	14475	14301	23	—61.1	—58.1	—63.4	5	—70.7
	100	16	16832	16905	16754	16	—74.3	—71.7	—79.3	—	—
	70	12	18904	18969	18826	12	—73.7	—70.3	—78.7	—	—
	60	9	19843	19940	19630	9	—59.7	—65 7	—69.5	—	—
	50	9	20927	21007	20858	9	—61.6	—59.0	—64.3	—	—
	40	4	22475	22500	22400	4	—58.5	—57.1	—60.0	—	—
	30	4	24146	24233	24074	4	—53.5	—51.7	—56.7	—	—
	20	2	26825	26873	26777	2	—47 2	—46.0	—48.3	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 0000 U.T.	Surface	16	*982mb.	*984mb.	*981mb.	16	30.5	33.8	27.4	16	— 6.2
	1000	16	33	60	18	—	—	—	—	—	—
	850	16	1482	1504	1461	16	25.8	28.9	18.3	16	— 1.2
	700	16	3150	3173	3113	14	12.9	14.4	9.0	14	— 5.7
	600	16	4421	4454	4369	12	3.3	5.3	0.8	12	—11.4
	500	16	5882	5913	5837	15	— 3.7	— 0.3	— 9 2	15	—20.8
	400	16	7 14	7651	7577	16	—13.4	—11.9	—16.9	16	—33.3
	300	15	9733	9781	9678	15	—28 7	—27.4	—30.7	15	—44.7
	250	15	11013	11064	10956	15	—38.5	—36.0	—39.9	15	—53.2
	200	15	12511	12568	12448	15	—49.8	—48.2	—51.1	15	—62.2
	150	15	14340	14414	14270	15	—62.9	—60.0	—64.7	1	—68.7
	100	14	16760	16882	16680	14	—77.0	—72.9	—81.8	—	—
	70	14	18801	18892	18727	14	—74.4	—68.5	—80.6	—	—
	60	10	19758	19830	19690	10	—67.3	—63 9	—72.1	—	—
	50	10	20805	29902	20649	10	—64.2	—60.4	—70.0	—	—
	40	8	22310	22370	22177	8	—59.1	—57.3	—61.2	—	—
	30	7	24045	24116	23946	7	—54.2	—45 3	—59.2	—	—
	20	6	26657	26736	26558	6	—50.4	—47.9	—53 0	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of case the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.(*contd.*)—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

JULY — 1973

Station	Presure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 1200 UT	Surface	23	* 1010m.b.	* 1013m.b.	* 1007m.b.	23	29.0	32.7	26.1	23	20.9
	1000	23	118	144	91	23	27.2	32.4	21.0	23	18.4
	850	23	1538	1572	1505	23	21.4	29.5	15.1	23	0.3
	700	22	3192	3250	3145	22	11.3	14.8	6.0	22	—11.2
	600	22	4450	4521	4398	22	2.7	7.1	— 5.4	22	—18.2
	500	22	5915	5981	5878	22	— 5.1	— 1.6	— 8.6	22	—28.2
	400	22	7636	7716	7551	22	—15.6	—11.0	—23.2	22	—35.9
	300	22	9754	9832	9652	22	—27.8	—25.7	—29.4	22	—46.4
	250	22	11026	11131	10918	22	—36.7	—34.5	—38.9	21	—53.1
	200	21	12539	12824	12458	21	—47.4	—44.3	—51.8	20	—62.6
	150	21	14395	14491	14242	21	—59.5	—55.9	—63.3	12	—63.6
	100	21	16805	16938	16720	21	—71.4	—68.0	—73.2	—	—
	70	19	18970	19072	18812	19	—69.1	—62.8	—76.5	—	—
	60	15	19927	20000	19800	15	—62.5	—58.1	—65.0	—	—
	50	14	21039	21084	20924	14	—57.5	—54.0	—60.7	—	—
	40	11	22539	22610	22400	11	—53.6	—49.0	—57.8	—	—
	30	11	24337	24455	24227	11	—49.4	—43.0	—53.1	—	—
	20	6	26960	27188	26720	6	—44.2	40.0	—45.9	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	31	* 991m.b.	* 995m.b.	* 988m.b.	31	34.7	42.6	30.5	31	12.3
	1000	29	60	95	30	—	—	—	—	—	—
	850	29	1511	1526	1472	29	22.3	28.8	16.3	29	—10.0
	700	29	3157	3196	3087	28	12.4	16.0	7.2	28	—12.6
	600	28	4433	4478	4384	28	5.1	9.1	2.2	27	—19.3
	500	27	5900	5963	5811	27	— 3.0	1.1	— 6.1	27	—26.3
	400	25	7631	7692	7559	25	—12.6	— 9.0	—15.1	25	—31.1
	300	25	9774	9832	9703	25	—26.4	—23.3	—29.0	25	—45.1
	250	25	11067	11137	10998	25	—35.6	—32.3	—37.9	24	—52.8
	200	23	12584	12668	12509	23	—46.9	—43.2	—50.4	24	—61.8
	150	20	14438	14528	14347	20	—59.4	—53.7	—62.0	11	—71.1
	100	19	16893	17022	16777	18	—73.0	—68.0	—75.2	—	—
	70	15	18958	19037	18849	15	—72.5	—67.6	—73.8	—	—
	60	14	19939	20030	19820	14	—64.5	—61.7	—67.4	—	—
	50	14	21016	21116	20908	14	—58.7	—56.7	—61.1	—	—
	40	14	22563	22610	22340	14	—54.6	—51.5	—56.2	—	—
	30	13	24285	24377	24173	13	—50.9	—48.5	—53.2	—	—
	20	9	26980	27035	26905	9	—45.9	—40.1	—02.7	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	16	* 982m.b.	* 984m.b.	* 980m.b.	16	42.0	45.4	37.2	16	8.2
	1000	16	25	45	03	—	—	—	—	—	—
	850	16	1496	1516	1472	16	28.3	32.2	22.4	16	— 1.4
	700	15	3171	3201	3123	15	13.4	16.6	6.7	15	—11.1
	600	15	4447	4493	4394	13	5.3	8.1	1.8	12	—15.6
	500	13	5916	5965	5860	12	— 2.4	— 1.7	— 6.0	12	—24.1
	400	13	7657	7726	1594	13	—12.4	— 9.9	—15.2	13	—35.7
	300	12	9794	9882	9707	12	—27.2	—24.6	—30.3	12	—47.1
	250	12	11084	11172	10978	12	—36.5	—33.5	—39.3	12	—54.6
	200	12	12595	12669	12476	12	—48.0	—44.8	—51.8	12	—63.9
	150	12	14444	14516	14314	12	—60.2	—56.1	—61.9	5	—71.7
	100	12	16890	17020	16735	12	—74.1	—69.5	—77.1	—	—
	70	11	18964	19164	18816	11	—71.5	—66.3	—75.6	—	—
	60	10	19956	20150	19840	10	—66.2	—63.8	—70.1	—	—
	50	10	21016	21234	20865	10	—60.2	—57.1	—66.7	—	—
	40	6	22522	22620	22380	6	—55.4	—54.1	—57.1	—	—
	30	6	24250	24393	24136	6	—50.9	—48.6	—54.5	—	—
	20	5	26080	27103	26853	5	—43.6	—38.7	—49.4	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheire pressure corrected to the elevation of the radiosonde station.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE; THE HIGHEST WIND SPEED IN THE UPPER AIR.

JULY — 1973

	Station	Freezing level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gmb)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (010—360)°	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh.	4816 (22)	574 (22)	—16.3 (22)	5800	509	—28.0	4120	625	—13.2	16018 (10)	128 (10)	—68.2 (10)	18040	087	—76.3	8300	356	—25.9	7830	385	260	46
	Helwan. . . .	5278 (29)	540 (29)	—19.1 (29)	6060	489	—22.0	4250	601	—16.3	17426 (9)	091 (9)	—76.5 (9)	18230	078	—76.7	16230	111	—71.4	9180	324	255	105
	Aswan.	5119 (16)	553 (16)	—14.4 (16)	5800	507	—33.4	4660	584	—10.3	17298 (11)	092 (11)	—78.3 (11)	18240	078	—79.3	16693	100	—77.4	16525	103	100	68
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh.	5005 (22)	562 (22)	—22.0 (22)	5670	620	—24.3	4370	602	—26.0	17109 (17)	096 (17)	—72.4 (17)	18580	075	—73.1	16787	100	—72.8	8450	355	230	70
	Helwan. . . .	5273 (28)	542 (28)	—23.4 (28)	6100	490	—21.1	3680	651	—23.4	17543 (15)	089 (15)	—74.0 (15)	19520	064	—71.5	16080	113	—76.2	9070	332	250	98
	Aswan.	5458 (13)	531 (13)	—21.4 (13)	6220	485	—22.7	4720	580	—14.2	16896 (11)	100 (11)	—74.7 (11)	17900	086	—74.6	16460	107	—74.9	19750	61	100	62

N = The number of cases the element has been observed during the month.

TABLE B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

MERSA MATRUH (A)—JULY 1973

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000—360°)																						Number of Calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	0	—	0	—	1	5	0	—	0	—	0	—	0	—	0	—	3	6	10	7	3	11	4	10	1	22	8
	1000	0	—	1	6	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	13	10	14	2	12	0	21	13
	850	4	21	0	—	2	19	0	—	0	—	0	—	0	—	0	—	0	—	1	28	3	16	11	20	0	21	20
	700	4	16	2	28	1	21	0	—	0	—	0	—	0	—	0	—	0	—	2	14	3	14	2	16	0	14	17
	600	5	17	2	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	20	3	16	0	—	0	12	19
	500	2	14	1	23	1	6	0	—	0	—	0	—	0	—	0	—	2	16	2	15	3	19	1	16	0	12	16
	400	2	13	1	27	0	—	0	—	0	—	1	6	0	—	2	18	2	21	1	29	1	29	1	11	0	11	19
	300	1	8	0	—	0	—	0	—	0	—	0	—	1	15	2	23	3	22	1	21	2	10	1	10	0	11	17
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	25	2	29	3	14	1	10	1	13	0	11	20
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	22	3	22	4	22	2	12	0	—	0	11	21
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	23	3	15	2	19	0	—	0	—	0	9	21
	100	1	3	0	—	0	—	1	21	1	11	0	—	0	—	2	15	1	13	1	10	0	—	0	—	0	8	14
	70	0	—	1	1	0	—	2	20	2	16	1	34	0	—	0	—	0	—	0	—	1	10	0	—	0	6	17
	60	0	—	0	—	0	—	2	27	1	20	1	15	0	—	0	—	0	—	0	—	1	15	0	—	0	5	17
	50	0	—	0	—	0	—	1	29	1	3	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	29
	40	0	—	0	—	1	33	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	33
	30	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	3	11	0	—	1	8	0	—	7	—	0	—	0	—	0	—	0	—	0	—	5	16	14	13	0	23	13
	1000	0	—	0	—	0	—	0	—	14	—	0	—	1	23	0	—	0	—	0	—	6	21	16	15	0	23	17
	850	4	12	1	17	0	—	0	—	6	—	0	—	0	—	0	—	1	18	7	16	3	14	7	13	0	23	14
	700	6	19	3	23	0	—	0	—	3	—	0	—	0	—	0	—	4	23	4	25	2	17	3	17	0	22	21
	600	4	24	1	13	1	17	0	—	1	—	0	—	0	—	1	24	4	28	3	19	3	10	5	13	0	22	19
	500	1	20	3	18	0	—	1	6	0	—	0	—	0	—	4	22	3	13	3	16	3	16	4	18	0	22	17
	400	2	17	4	15	0	—	0	—	0	—	0	—	0	—	3	28	7	26	2	10	1	23	1	3	0	20	21
	300	1	11	0	—	0	—	0	—	0	—	0	—	0	—	3	26	7	27	2	36	3	19	1	23	0	17	25
	250	1	20	0	—	0	—	0	—	0	—	0	—	1	44	2	38	4	24	3	25	3	20	3	10	0	17	24
	200	0	—	0	—	0	—	0	—	3	—	0	—	1	10	3	28	5	32	4	16	1	28	0	—	0	14	25
	150	0	—	0	—	1	2	0	—	0	—	0	—	1	12	4	25	3	30	1	19	3	13	0	—	0	13	20
	100	0	—	1	15	0	—	1	5	3	22	1	28	2	34	2	16	0	—	0	—	2	10	0	—	0	12	19
	70	0	—	1	31	0	—	4	27	3	19	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	9	24
	60	0	—	2	28	0	—	2	21	2	20	0	—	1	14	0	—	0	—	0	—	0	—	0	—	0	7	22
	50	0	—	0	—	1	18	3	24	3	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	7	26
	40	0	—	0	—	1	34	5	31	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	6	32
	30	0	—	0	—	2	23	2	41	1	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	32
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has een observeb from the range of direction during the month.

N = The total number of cases the wind has been observed for all directions during the month.

Table B 3 (*contd.*)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

HELWAN (A) — JULY 1973

Time	Pressure Surface Millibar	Wind between specified ranges of direction (000—360)°																						Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	12	5	9	6	1	5	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	5	0	31	5
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—
	850	7	20	7	24	7	14	1	25	0	—	0	—	0	—	0	—	0	—	0	—	2	20	6	16	0	30	19
	700	6	15	2	26	3	15	1	24	1	14	0	—	0	—	3	20	2	16	3	18	4	22	4	18	0	29	18
	600	3	20	5	18	2	18	2	17	0	—	1	8	1	5	0	—	1	32	2	27	8	17	2	20	0	27	18
	500	5	19	3	17	3	14	1	31	0	—	0	—	0	—	1	13	2	18	6	33	4	20	2	12	0	27	21
	400	3	12	1	20	1	18	1	3	2	10	0	—	1	13	0	—	3	28	9	30	5	32	1	5	0	27	23
	300	0	—	0	—	0	—	1	4	0	—	0	—	2	24	2	36	7	20	8	42	3	14	1	14	0	24	28
	250	0	—	1	2	0	—	0	—	0	—	0	—	2	12	1	17	6	22	8	37	2	36	1	18	0	21	21
	200	0	—	0	—	0	—	1	22	0	—	0	—	0	—	2	34	6	25	6	33	2	20	1	8	0	18	27
	150	0	—	0	—	0	—	0	—	0	—	0	—	3	12	4	30	5	28	2	16	0	—	0	—	0	14	24
	100	0	—	0	—	0	—	0	—	1	27	0	—	4	26	0	—	0	—	0	—	0	—	0	—	0	5	27
	70	0	—	0	—	0	—	0	—	1	29	3	44	0	—	0	—	0	—	0	—	0	—	0	—	0	4	40
	60	0	—	0	—	0	—	1	35	1	27	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	31
	50	0	—	0	—	0	—	0	—	1	39	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	39
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T	Surface	11	7	3	10	0	—	0	—	0	—	0	—	0	—	0	—	1	7	3	6	1	10	12	8	0	31	8
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	6	13	6	20	7	21	3	13	0	—	0	—	0	—	0	—	0	—	1	14	2	25	4	13	0	29	17
	700	9	12	3	15	2	28	1	8	0	—	1	10	0	—	2	24	0	—	4	21	4	20	3	11	0	29	16
	600	1	18	2	20	0	—	3	17	3	12	0	—	1	13	0	—	2	15	3	20	4	19	8	13	0	27	16
	500	2	14	0	—	1	9	4	18	1	10	1	4	0	—	0	—	3	25	7	39	5	19	1	11	0	25	23
	400	1	6	0	—	1	15	1	29	0	—	2	6	0	—	1	19	2	30	5	24	7	26	2	8	0	22	25
	300	0	—	1	35	0	—	0	—	0	—	0	—	1	53	2	16	4	12	7	37	3	21	1	34	0	19	23
	250	1	13	—	—	0	—	0	—	0	—	0	—	0	—	4	20	1	25	8	33	2	14	1	22	0	17	24
	200	1	7	—	—	0	—	1	9	1	6	0	—	1	7	0	—	4	17	4	33	4	22	0	—	0	16	20
	150	0	—	—	—	0	—	0	—	3	17	1	22	1	20	2	24	5	25	2	6	0	—	0	—	0	14	20
	100	0	—	—	—	0	—	1	10	2	25	1	40	1	55	4	21	1	65	0	—	0	—	0	—	0	10	31
	70	0	—	—	—	0	—	0	—	5	38	2	42	0	—	1	12	0	—	0	—	0	—	0	—	0	8	36
	60	0	—	1	15	0	—	0	—	4	41	2	48	0	—	1	11	0	—	0	—	0	—	0	—	0	8	36
	50	0	—	—	—	0	—	3	31	4	42	1	34	0	—	0	—	0	—	0	—	0	—	0	—	0	8	37
	40	0	—	—	—	0	—	2	30	6	37	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	35
	30	0	—	—	—	1	20	2	43	1	25	1	35	0	—	0	—	0	—	0	—	0	—	0	—	0	5	33
	20	0	—	—	—	0	—	1	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	40
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N. — The number of cases the wind has been observed from the range of directions during the month.

TN — The total number of cases the wind has been observed for all directions during the month.

Table B 3. (*contd.*)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A) -- JULY 1973

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000—360°)																						Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar wind Speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	9	11	0	—	1	7	0	—	0	—	1	9	0	—	0	—	1	5	1	10	0	—	3	14	0	16	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	4	13	2	18	0	—	1	10	1	3	0	—	0	—	1	20	0	—	4	8	1	5	2	15	0	16	12
	700	0	—	1	11	0	—	0	—	2	8	1	13	2	13	3	18	2	10	2	22	1	16	0	—	0	14	14
	600	1	10	0	—	1	5	0	—	0	—	0	—	3	11	5	6	2	20	2	12	0	—	0	—	0	14	15
	500	0	—	1	10	0	—	0	—	1	18	0	—	6	—	2	11	5	13	1	13	1	5	3	12	0	14	15
	400	0	—	1	7	1	10	1	2	2	13	1	12	2	11	1	8	0	—	1	5	1	6	0	—	0	11	9
	300	0	—	1	18	0	—	3	18	1	26	3	14	1	2	1	11	0	—	0	—	0	—	0	—	0	10	16
	250	0	—	0	—	1	31	4	18	1	3	3	9	0	—	1	5	0	—	0	—	0	—	0	—	0	10	15
	200	1	6	0	—	1	14	3	29	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	9	20
	150	0	—	0	—	0	—	2	16	5	34	2	19	0	—	0	—	0	—	0	—	0	—	0	—	0	9	27
	100	0	—	0	—	0	—	4	36	2	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	6	37
	70	0	—	0	—	0	—	1	26	1	36	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	31
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	2	6	1		0	—	0	—	0	—	3	12	0	—	0	—	0	—	2	10	1	10	3	6	4	16	6
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	1	6	0	—	0	—	0	—	0	—	0	—	0	—	1	—	3	9	3	5	4	6	3	7	0	15	7
	700	0	—	0	—	0	—	0	—	0	—	0	—	2	12	3	10	4	10	5	12	1	9	0	—	0	15	12
	600	1	10	0	—	0	—	1	25	0	—	1	15	2	20	2	15	4	18	2	20	0	—	2	4	0	15	15
	500	0	—	0	—	0	—	1	5	1	9	1	11	4	9	6	12	0	—	0	—	0	—	0	—	0	13	10
	400	4	10	1	4	0	—	2	16	0	—	0	—	2	9	0	12	1	8	0	—	1	11	2	6	0	13	10
	300	0	—	1	10	1	12	4	14	4	17	1	9	0	—	0	—	1	13	0	—	0	—	0	—	0	12	14
	250	0	—	1	12	2	16	2	20	5	22	0	—	0	—	0	—	1	13	0	—	0	—	0	—	0	11	19
	200	0	—	0	—	0	—	2	18	7	23	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	10	22
	150	0	—	0	—	0	—	6	28	2	35	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	9	29
	100	0	—	0	—	0	—	7	45	1	52	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	46
	70	0	—	0	—	0	—	3	38	2	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	38
	60	0	—	0	—	0	—	1	51	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	51
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — JULY 1973

For the month as a whole the mean daily temperature and relative humidity were slightly above normal.

Mild summer weather prevailed the whole month apart from four short heat waves on the 20*th*, 24*th*, 28*th* and 31*st*. The third heat wave yielded the highest maximum air temperature for the month (37.7°C).

The highest maximum soil temperature were higher than corresponding values of last July at all depths with departures between 2.7°C (at 22 cm.) and 0.4°C (at 50 cm.). The lowest minimum soil temperatures were higher than the corresponding values of last July at all depths except at 10 and 20 cm. depths ; all the departures were slight and varied between 0.1°C and 0.4°C.

The mean daily actual sunshine duration was higher than normal by 0.2 hour. The mean daily wind speed at 1.5 met. was the same as July 1972. The mean daily pan evaporation was lower by 1.97 mm. than July 1972.

TAHRIR — JULY 1973

For the month as a whole the mean daily air temperature and relative humidity were rather normal.

The month was characterized by three heat waves in the periods (9*th* - 11*th*), (16*th* 21*st*) and (24th-229th). The second heat wave was the most excessive yielding the highest maximum air temperature for the month (42.4°C) on the 21*st*. Apart from these heat waves mild summer weather was experienced.

The highest maximum soil temperatures were higher than the corresponding values of last July at all depths with departures between 4.1°C (at 2 cm.) and 0.6°C (at 100 cm.). The lowest minimum soil temperatures were lower than last July at all depths except at 20 cm depth where its values was higher than last July. All the departures were slight and varied between 0.1°C and 0.7°C.

The mean daily values of actual sunshine duration, pan evaporation and wind speed at 1.5 metres were lower than normal by 0.3 hour, 1.54 mm. and 0.5 m./sec. respectively.

BAHTIM—JULY 1973

For the month as a whole the mean daily air temperature and relative humidity were about average.

The month was characterized by three heat waves in the periods (10*th* - 12*th*), (17*th* - 22*th*) and (25*th* - 29*th*). The sceond heat wave yielded the highest maximum air temperature for the month (38.4°C) on the 21*st*. Apart from these heatwaves mild summer weather prevailed.

The highest maximum soil temperatures were higher than the corresponding values of last July at all depths with departures between 2.6°C(at 5 cm.) and 0.3°C (at 100 cm.). The lowest minimum soil temperatures were lower than last July at 2 and 50 cm depths by 1.8°C and 0.3°C respectively ; higher at 5 and 10 cm. depths by 0.5°C and 0.8°C respectively ; and the same as last July at 20 and 100 cm. depths.

The mean daily actual sunshine duration was higher than average by 0.1 hour. The mean daily pan evaporation and wind speed at 1.5 metres were lower than average by 0.12 mm. and 0.3 m./sec. respectively.

KHARGA — JULY 1973

For the month as a whole the mean daily air temperature was above normal and the mean daily relative humidity was rather normal.

Mild summer weather with subnormal maximum air temperatures prevailed from the beginning of the month till the 16*th*, apart from a light heat wave on the 12*th* and 13*th*. From the 17*th* till the end of the month a prolonged heat wave was experienced yielding the highest minimum air temperature for the month (30.8°C) and the higest daily pan evaporation (31.63 mm) on the 27*th*, the highest maximum air teperature (45.6°C) and the lowest relative humidity (7 %) on the 29*th*.

The highest maximum soil temperatures were higher than the corresponding values of last July at all depths with departures between 3.2°C (at 2 cm.) and 0.6°C (at 100 cm.). The lowest minimum soil temperatures were higher than last July at 2 cm. depth by 0.8°C, lower at depths between 5 and 50 cm. with departures between 0.1°C (at 5 cm.) and 1.7°C (at 10 cm.), and the same as last July at 100 cm. depth.

The mean daily values of actual sunshine duration, pan evaporation and wind speed at 1.5 met. height showed slight departures below normal.

TABLE C 1. - AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

JULY — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	—5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Mersa Matruh. .	29.3	21.3	25.5	23.5	27.1	24.0	24.0	24.0	24.0	24.0	23.7	12.9	1.4	0.03	0.0	0.0
Tahrir	36.2	20.0	27.1	23.1	30.1	24.0	24.0	24.0	24.0	24.0	23.0	13.5	7.7	1.3	0.0	0.0
Bahtim	34.3	18.6	26.2	22.2	29.5	24·0	24.0	24.0	24.0	24.0	20.9	12.8	7.2	0.5	0.0	0.0
Kharga	40.6	25.1	33.4	30.2	36.3	24.0	24.0	24.0	24.0	24.0	24.0	22.8	17.3	9.9	2.9	0.1

TABLE C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS

JULY 1973

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Mersa Matruh. . . .	37.7	28	26.5	6	23.8	29	18.6	5	17.4	5	—	—
Tahrir	42.4	21	33.1	6	22.6	26	17.0	31	15.8	31	14.0	5
Bahtim	38.4	21	31.8	30	21.5	10	15.9	31	13.0	31	11.4	2
Kharga	45.6	29	35.0	7	30.8	27	20.4	20	17.6	9	—	—

TABLE C 3.—(SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES, EVAPORATION & RAINFALL

JULY 1973

STATION	Soar+Sky) Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity %				Vapour pressure (mm s)						Evaporation(mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 UT	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
Mersa Matruh .	565.9	380.0	433.9	88	79	67	35	31	19 2	19.7	26.8	28	13.0	2	3.7	5.43	0.0	0.0	—
Thahrir	656.0	374.9	431.1	87	66	38	26	18	16.9	15.3	23.3	25	10.8	1	6.5	10.55	0.0	0.0	—
Bahtim	666.6	366.7	429.9	85	65	40	28	1.10	16.0	16.4	21.7	23.27	9.8	1	8.6	9.98	0.0	0.0	=
Kharga	560 3	379.8	419.0	91	24	17	7	29	8.8	8·7	15.6	30	5.1	25	19.9	20.92	0.0	0.0	—

Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms) IN DIFFERENT FIELDS

JULY — 1973

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
M. Matruh	H	43.0	40.2	36.0	32.0	29.8	27.0	23.8	—	—	—	—	—	—	—	—	—
	L	25.5	24.8	24.6	26.4	27.2	25.2	22.4	—	—	—	—	—	—	—	—	—
Tahrir. . .	H	56.6	49.7	44.1	38.0	33.9	31.8	28.9	27.3	26.2	34.7	33.6	30.8	30.0	28.6	27.1	—
	L	28.5	27.3	28.0	30.5	31.0	29.6	27.1	25.8	25.3	25.0	25.1	25.6	27.0	26.5	25.3	—
Bahtim . .	H	58.0	48.9	41.4	35.1	32.1	29.8	26.7	24.7	38.2	34.5	30.6	29.4	27.2	25.4	22.4	—
	L	27.9	29.0	29.6	31.1	29.9	27.9	25.0	24.1	24.3	23.7	24.2	24.9	24.5	23.2	21.3	—
Kharga . .	H	60.0	52.7	47.0	40.8	36.2	33.4	30.4	29.0	—	—	—	—	—	—	—	—
	L	22.7	25.8	28.2	32.4	32.8	31.7	29.2	28.2	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

JULY — 1973

STATION	Wind Speed m/sec at $1^1/_2$ metres			Days with surface wind speed at 10 metres							Max. Gust (knots) at 10 metres	
	Mean of the dry	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	Value (knots)	Date
M. Matruh	4.3	3.1	5.6	31	29	14	2	0	0	0	28	8
Tahrir.	2.0	1.4	2.7	28	5	0	0	0	0	0	23	22
Bahtim..	2.0	1.2	2.8	30	6	0	0	0	0	0	22	14
Kharga.	3.7	2.8	4.7	26	13	1	0	0	0	0	28	27

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
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THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields.

THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 16 NUMBER 8

AUGUST, 1973

U.D.C. 551. 506.1 (62)

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on the tables please refer to Volume 16, Number 1 (January 1973).

GENERAL SUMMARY OF WEATHER CONDITIONS

AUGUST 1973

Generally mild and humid in the north, hot and dry in the south.

PRESSURE DISTRIBUTION

The surface pressure distribution was influenced as normal either by the extension of the monsoon trough over the East Mediterranean, or by the weak high pressure over Central Mediterranean.

SURFACE WIND

Light to moderate N ly and NW ly winds prevailed during this month in general. Winds freshened during few days in scattered places mainly in the Western Desert, Upper Egypt and Red Sea districts.

TEMPERATURE

Weather was generally mild with high humidity in north of the country, hot with low humidity in the south.

Maximum air temperature was slightly below normal in general.

The highest and lowest maximum air temperatures reported were 45.8°C at Aswan on the 1*st* & 27.3°C at Balteam on the 20*th* respectively.

Minimum air temperature showed slight departures from normal in general : mostly above normal in the Mediterranean district and round normal otherwise.

The highest and lowest minimum air temperature reported were 28.9°C at Hurghada on the 13*th* & 13.8°C at Kom Ombo on the 24*th* respectively.

PRECIPITATION

No rain was reported as normal.

OTHER WEATHER PHENOMENA

Early morning mist or low stratus developed frequently over Delta, Cairo & Middle Egypt.

Light rising sand was reported in few days over scattered places in the Western Desert, Upper Egypt and Red Sea districts.

Cairo, March 1975

Chairman (M. F. TAHA)

Board of Directors

SURFACE DATA

TAB A 1.—ANNUAL VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

AUGUST — 1973

STATION	Atmospheric Pressure (mb) M.S.L		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms.
			Maximum		Minimum			Dry Bulb		Wet Bulb							
	Mean	D.F Normal or Average	(A) Mean	D.F Normal or Average	(B) Mean	D.F Normal or Average	$\frac{A+B}{2}$	Mean	D.F Normal or Average	Mean	D.F Normal or Average	Mean	D.F Normal or Average	Total Actual	Total Possible	%	Mean
Sallum	1011.8	+1.4	30.4	—0.7	21.9	+0.1	26.2	26.0	—0.3	12.4	—0.4	66	0	—	—	—	7.6
Meroe Matruh (A)	1011.1	+0.9	28.7	—1.1	21.5	+0.5	25.1	25.3	—0.2	22.3	+0.5	78	+ 6	371.9	412.1	90	5.0
Alexandria (A)	1010.1	+1.1	30.1	—0.5	23.2	+0.3	26.7	26.1	—0.5	22.0	—0.8	69	— 2	357.5	412.1	86	5.4
Port Said	1008.2	+0.1	31.3	+0.5	23.4	—1.2	27.4	26.5	—0.8	22.6	—1.0	71	— 1	355.4	412.1	86	5.0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1009.0	+0.4	31.8	—2.7	18.8	—0.3	25.3	24.7	—1.9	20.8	—1.2	71	+ 5	365.2	411.2	88	3.6
Cairo (A)	1009.2	+0.6	33.4	—1.2	21.5	—0.3	27.5	26.7	—1.0	21.6	—0.1	65	+ 8	—	—	—	9.7
Fayoum	—	—	36.5	0.0	20.1	—1.4	28.3	27.8	—1.0	20.9	—0.5	55	+ 5	—	—	—	8.4
Minya (A)	1008.4	+0.9	35.2	—1.2	19.6	—0.8	27.4	27.3	—0.9	20.5	—0.2	55	+ 5	373.0	407.7	91	14.3
Assyout (A)	1007.9	+0.8	34.5	—2.3	20.9	—1.4	27.7	27.7	—2.3	20.0	+0.2	48	+12	—	—	—	13.6
Luxor (A)	1005.9	+0.6	39.4	—1.5	22.9	—0.6	31.2	31.1	—1.6	19.9	—0.1	33	+ 7	—	—	—	13.0
Aswan (A)	1006.1	+0.7	40.1	—1.2	24.2	—0.5	32.2	32.1	—1.4	18.3	—0.0	22	+ 6	—	—	—	26.2
Swes	1010.9	+1.0	36.0	—1.7	20.8	0.0	28.4	28.5	—1.2	19.9	+0.1	45	+ 9	379.0	409.3	92	15.5
Bahryia	1019.4	+1.0	35.7	—1.2	20.6	—0.4	28.2	28.1	—1.7	19.1	—0.8	42	+ 7	—	—	—	12.6
Farafra	1010.5	+1.3	36.3	—1.1	21.3	+0.2	28.8	28.9	—0.8	13.1	+0.0	32	+ 5	—	—	—	16.0
Dakhla	1009.1	+1.3	36.5	—2.0	20.9	—1.7	28.7	29.0	—1.7	17.5	—0 9	28	+ 5	—	—	—	21.4
Kharga	1007.8	+1.3	37.6	—1.7	22.9	+0.1	28.3	30.7	—1.0	13.6	—0.2	30	+ 4	374.9	403.1	93	16.3
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurgha	1005.0	+0.3	33.0	—0.3	25.8	+0.7	29.4	29.6	—0.4	22.4	+0.4	52	+ 5	378.1	406.1	93	11.0
Quseir da	1005.3	—0.1	31.8	—1.8	25.5	—1.3	28.7	29.1	—1.0	21.9	—0.4	51	+ 3	—	—	—	10.3

Table A2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

AUGUST — 1973

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	D. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Sallum	33.8	23	27.7	13	31	17	0	0	0	21.2	—	24.4	11	19.5	15	0	0	0	0
Mersa Natruh (A)	30.2	9	27.6	12,22	31	1	0	0	0	20.7	—	25.0	1	19.0	31	0	0	0	0
Alexandria (A)	32.2	1	29.2	14	31	11	0	0	0	21.6	—	24.4	11	20.4	15	0	0	0	0
Port Said (A)	33.8	11	29.4	18	31	30	0	0	0	22.9	—	25.8	12	21.4	19	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	35.0	11	29.8	17	31	26	0	0	0	—	—	22.3	9	16.4	27	0	0	0	0
Cairo (A)	37.2	1	31.5	19	31	31	6	0	0	—	—	23.0	9	20.2	16	0	0	0	0
Fayoum	41.1	1	34.5	19,22	31	31	25	1	0	18.5	—	22.8	12	17.1	19	0	0	0	0
Minya (A)	39.0	1	33.4	16.22	31	31	14	0	0	18.8	—	24.0	2	16.4	18	0	0	0	0
Assyout (A)	37.2	1	32.6	4	31	31	7	0	0	18.2	—	24.0	12	18.0	18	0	0	0	0
Luxor (A)	44.2	1	36.8	19	31	31	31	10	0	17.4	—	25.8	12	20.3	17	0	0	0	0
Aswan (A)	45.8	1	37.0	17	31	31	31	14	1	—	—	28.2	1	21.0	24	0	0	0	0
Siwa	39.6	31	33.3	15	31	31	20	0	0	19.9	—	23.8	1	18.4	27	0	0	0	0
Bahariya	41.3	1	33.2	18	31	31	19	1	0	19.8	—	22.9	2	18.6	18	0	0	0	0
Farafra	42.4	1	34.0	8	31	31	25	1	0	20.2	—	24.5	2	18.8	4	0	0	0	0
Dakhla	42.1	1	34.3	3	31	31	28	1	0	20.7	—	24.7	2	17.6	15	0	0	0	0
Kharga	42.6	1	35.4	3	31	31	31	1	0	21.0	—	26.5	1	18.6	25	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	35.2	2	31.6	24	31	31	1	0	0	—	—	28.9	13	23.5	20	0	0	0	0
Quesir	33.8	10	30.5	18	31	31	0	0	0	20.3	—	27.9	2	23,5	23	0	0	0	0

Table A 3. — SKY COVER AND RAINFALL

AUGUST — 1973

Station	Mean Sky Cover (Oct).					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sollum	1.6	0.5	1.8	0.3	0.9	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	0.7	3.0	1.3	1.8	1.5	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	4.1	2.7	3.1	2.1	2.9	0.0	—0.3	0.0	—	0	0	0	0	0	1	0
Port Said (A)	1.2	1.6	0.3	0.6	0.9	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.5	1.7	1.8	0.2	1.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Cairo (A)	2.5	4.0	0.6	0.1	1.6	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Fayoum	—	2.1	0.1	0.0	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.0	1.5	0.1	0.0	1.2	0.0	—Tr.	0,0	—	0	0	0	0	0	0	0
Assyot (A)	0.0	0.5	0.0	0 0	0.1	0.0	—Tr.	0 0	—	0	0	0	0	0	0	0
Luxor (A)	0.0	0.1	0.1	0.0	0.1	0,0	—Tr.	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.0	0.3	0.3	0.0	0.1	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	0.7	0.5	0.3	0.1	0.4	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Bahariya	0.0	0.7	0.1	0.1	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.1	0.0	0.1	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.0	0.1	0 0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.0	0.0	0.0	0.0	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.0	0.2	0.0	0.1	1.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0

Table A 4.– DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

AUGUST — 1973

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥1000 Metres	Thick Haze Vis <1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis <1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice. Pellets	Hail											
Sallum	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0
Mersa Matruh (A)	0	0	0	0	0	0	9	0	0	0	12	0	0	20	0
Alexandria (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
Port Said (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	13	0	0	0	0	0	0	26	0
Cairo (A)	0	0	0	0	0	0	23	0	2	0	0	0	0	18	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	14	0	2	0	2	0	0	31	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Luxor (A)	0	0	0	0	0	0	0	0	5	0	3	0	0	31	0
Aswan (A)	0	0	0	0	0	0	0	0	1	0	6	0	0	31	0
Suez	0	0	0	0	0	0	0	0	2	0	13	0	0	29	0
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Farafra	0	0	0	0	0	0	0	0	0	0	1	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	1	0	0	31	0
Kharga	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	8	0	0	31	0
Quesir	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

AUGUST — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of direction indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	2	1	0	1—10	46	144	49	2	5	0	1	1	1	4	74	203	530
				11—27	7	23	2	0	0	0	0	0	0	4	51	124	211
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**53**	**167**	**51**	**2**	**5**	**0**	**1**	**1**	**1**	**8**	**125**	**327**	**741**
Mersa Matruh	3	0	0	1—10	28	5	0	0	0	0	0	1	31	90	65	82	302
				11—27	54	0	0	0	0	1	1	0	2	3	48	330	439
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**82**	**5**	**0**	**0**	**0**	**1**	**1**	**1**	**33**	**93**	**113**	**412**	**741**
Alexandria	0	0	0	1—10	99	1	0	2	0	1	1	7	1	1	19	261	393
				11—27	15	0	0	0	0	0	0	0	0	0	12	324	351
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**114**	**1**	**0**	**2**	**0**	**1**	**1**	**7**	**1**	**1**	**31**	**585**	**744**
Tanta	2	0	0	1—10	87	12	3	0	0	0	3	18	82	120	182	164	671
				11—27	17	0	0	0	0	0	0	0	0	0	12	42	71
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**104**	**12**	**3**	**0**	**0**	**0**	**3**	**18**	**82**	**120**	**194**	**206**	**742**
Cairo	116	0	0	1—10	54	21	1	0	0	0	1	2	4	71	183	151	488
				11—27	8	3	0	0	0	0	0	0	0	9	51	69	140
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**62**	**24**	**1**	**0**	**0**	**0**	**1**	**2**	**4**	**80**	**234**	**220**	**628**
Fayoum	4	0	0	1—10	376	288	10	0	0	0	0	1	2	2	6	55	740
				11—27	0	6	0	0	0	0	0	0	0	0	0	0	0
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**376**	**288**	**10**	**0**	**0**	**0**	**0**	**1**	**2**	**2**	**6**	**55**	**740**
Minya	0	0	0	1—10	372	56	0	0	0	0	0	0	0	0	5	34	467
				11—27	254	22	1	0	0	0	0	0	0	0	0	0	277
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**626**	**78**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**34**	**744**
Asyout	7	0	0	1—10	70	6	0	1	0	0	0	0	0	6	167	228	478
				11—27	62	5	0	0	0	0	0	0	0	0	5	187	259
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**132**	**11**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**6**	**172**	**415**	**737**

Table A 5.(*contd*,)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

AUGUST — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number id hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Luxor	48	0	0	1–10	13	0	1	0	0	15	91	82	79	165	122	73	641
				11–27	0	0	0	0	0	0	0	0	2	6	27	20	55
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**13**	**0**	**1**	**0**	**0**	**15**	**91**	**82**	**81**	**171**	**149**	**93**	**696**
Aswan	21	0	0	1–10	37	25	2	3	1	3	3	7	12	45	99	175	412
				11–27	12	6	0	0	0	0	0	1	0	11	77	203	310
				28–47	0	0	0	0	0	0	1	0	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**49**	**31**	**2**	**3**	**1**	**3**	**4**	**8**	**12**	**56**	**176**	**378**	**723**
Siwa	7	0	0	1–10	58	113	55	19	10	4	6	2	4	25	92	187	575
				11–27	13	64	2	1	0	0	0	0	0	3	20	59	162
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**71**	**177**	**57**	**20**	**10**	**4**	**6**	**2**	**4**	**28**	**112**	**246**	**737**
Dakhla	0	2	0	1–10	114	8	0	2	1	0	1	7	30	101	101	222	587
				11–27	61	2	0	0	0	0	0	0	0	0	1	91	155
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**175**	**10**	**0**	**2**	**1**	**0**	**1**	**7**	**30**	**101**	**102**	**313**	**742**
Kharga	1	0	0	1–10	269	26	16	5	6	1	4	0	2	12	32	161	534
				11–27	103	2	0	0	0	0	0	0	0	0	3	101	209
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**372**	**28**	**16**	**5**	**6**	**1**	**4**	**0**	**2**	**12**	**35**	**262**	**743**
Hurghada	7	0	0	1–10	30	29	0	1	0	0	0	0	0	2	56	88	206
				11–27	244	20	0	0	0	0	0	0	0	0	35	232	531
				28–47	2	0	0	0	0	0	0	0	0	0	1	6	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**274**	**49**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**91**	**320**	**737**
Quseir	4	2	0	1–10	120	45	3	4	1	7	19	8	10	28	75	162	482
				11–47	155	61	0	0	0	0	0	0	0	0	0	40	256
				28–27	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**275**	**106**	**3**	**4**	**1**	**7**	**19**	**8**	**10**	**28**	**75**	**202**	**738**

UPPER AIR CLIMATOLOGICAL DATA

Table B 1. MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHE& LOWER VALEUS OF ALTITUDE, AIR TEMBERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

AUGUST—1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 0000 T.U.	Surface	31	*1011mb.	*1012mb.	*1008mb.	31	24.6	27.4	21.0	31	20.1
	1000	31	122	133	098	31	23.6	28.0	20.5	31	18.7
	850	31	1524	1543	1496	31	17.2	22.8	12.5	31	3.8
	700	31	3165	3195	3126	31	10.1	14.8	=13.2	31	— 7.0
	600	31	4436	4474	4382	31	4.3	10.6	0.1	31	—14.4
	500	30	5896	5958	5838	30	— 4.5	— 1.7	— 8.2	30	—21.0
	400	30	7618	7703	7536	30	—15.0	—11.9	—20.0	30	— 30.2
	300	30	9737	9833	9624	30	—29.5	—25.9	—31.5	29	—44.5
	250	29	11005	11114	10803	29	—39.1	—37.9	—40.9	29	—52.0
	200	29	12507	12609	12379	29	—49.9	—45.0	—51.7	29	—61.5
	150	29	14333	14442	14260	29	—62.8	—61.4	—66.0	1	—65.8
	100	28	16769	16857	16623	28	—73.2	—70.8	—77.5	—	—
	70	27	18884	19043	18742	27	—67.8	—63.9	—71.5	—	—
	60	24	19859	20000	19700	24	—64.5	— 60.5	—70.9	—	—
	50	23	20943	21113	20779	23	—61.1	—55.9	—66.2	—	—
	40	21	22424	22540	22310	21	—57.5	—51.1	—65.0	—	—
	30	21	24113	24327	24019	21	—53.6	—51.0	—63.5	—	—
	20	14	26807	26907	26614	14	—48.9	—47.5	—51.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	31	*993mb.	*996mb.	*989mb.	31	22.6	25.2	20.9	31	18.9
	1000	—	—	—	—	—	—	—	—	—	—
	850	25	1486	1511	1446	25	19.5	24.0	14.9	25	20.0
	700	25	3138	3179	3110	25	12.6	16.2	9.3	25	— 9.2
	600	25	4416	4468	4379	25	5.7	8.2	2.0	25	— 15.6
	500	25	5885	5933	5838	25	— 2.6	1.1	— 6.2	25	—22.4
	400	24	7623	7698	7566	24	— 13.8	— 11.7	— 17.3	24	—31.6
	300	24	9745	9831	9666	24	— 29.4	—27.0	—31.0	24	—44.4
	250	24	11021	11112	10930	34	—38.9	—37.0	—42.7	24	—52.5
	200	24	12518	12610	12411	24	—49.9	—48.3	—51.6	24	—61.9
	150	24	14341	14436	14231	24	—63.0	—60.7	—64.4	—	—
	100	22	16670	16852	16631	22	—75.5	—71.9	—82.6	—	—
	70	20	18852	18933	18721	20	—69.6	—64.7	—76.8	—	—
	60	17	19819	19900	19700	17	— 64.8	—55.0	—68.9	—	—
	50	17	20893	20981	20774	17	—62.4	— 59.9	—65.5	—	—
	40	13	22360	22470	22260	13	— 58.6	—55.4	—60.5	—	—
	30	11	24095	24238	23985	11	—55.6	—52.7	—58.9	—	—
	20	9	26736	26878	26671	9	—49.8	—48.2	—52.3	—	—
	10	2	31422	31488	31357	2	—42.8	—41.0	—44,5	—	—
Aswan 0000 U.T.	Surace	30	*985mb.	*988mb.	*982mb.	30	27.0	31.2	24.2	30	8.2
	1000	—	—	—	—	—	—	—	—	—	—
	850	30	1487	1508	1462	30	21.9	29.0	18.1	30	2.4
	700	28	3144	3172	3099	28	13.3	14.8	11.0	28	— 9.3
	600	27	4347	4461	4378	27	4.6	7.5	1.0	26	—15.3
	500	26	5882	5942	5853	26	— 4.0	0.0	— 8.9	26	—23.6
	400	25	7614	7692	7563	25	—14.6	—12.0	—19.0	25	—32.0
	300	24	9735	9829	9669	24	—29.6	—27.3	—31.6	23	—45.5
	250	24	11008	11114	10937	23	—39.6	—38.0	—41.0	22	— 53.7
	200	24	12500	12613	12433	23	— 50.8	—49.0	—52.0	22	—62.0
	150	23	14313	14440	14235	23	—64.5	—68.1	—66.7	—	—
	100	23	16719	16850	16613	23	—77.5	—75.0	—81.5	—	—
	70	22	18780	18916	18674	22	—70.0	—65.3	—73.6	—	—
	60	22	19749	19899	19640	22	—65.5	—63.0	—67.3	—	—
	50	22	20826	20966	20714	22	— 62.3	—59.9	—64.4	—	—
	40	20	22340	22440	22160	20	—59.9	— 54.7	—63.5	—	—
	30	20	24026	24157	23889	20	—26.2	—52.0	—60.1	—	—
	20	13	26612	26797	26470	13	—51.4	—48.7	—55.3	—	—
	10									—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

Table B 1 (*contd.*) --MONTHLY MERNS AND MONTHLY ABSOLUTE HIGHER & LOWER VALEUS OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

AUGUST -- 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 12000 U.T.	Surface	31	*1011mb.	*1013mb.	*1008mb.	31	28.2	29.2	27.0	31	20
	1000	31	128	142	99	31	26.5	28.8	23.6	31	19.0
	850	31	1535	1551	1451	31	18.4	21.8	15.0	31	2.6
	700	31	3178	3206	3144	31	11.3	14.9	8.7	31	— 8.0
	600	31	4451	4495	4403	31	4.9	8.9	1.1	31	—14.4
	500	31	5917	5976	5852	31	— 3.7	— 1.0	—8.0	31	—21.7
	400	31	7645	7729	7568	31	—14.1	—10.8	—17.3	31	—31.1
	300	31	9768	9874	9677	31	—28.9	—25.6	—24.8	31	—43.9
	250	31	11043	11167	10942	31	—38.5	—35.8	—44.3	31	—51.8
	200	31	12544	12684	12403	31	—49.4	—47.2	—55.1	31	—61.0
	150	21	14375	14539	14203	31	—61.8	—59.0	—64.9	3	—69.8
	100	30	16253	16989	16640	29	—72.4	—68.7	—76 0	—	—
	70	29	18933	19124	18801	29	—66.8	—57.5	—71.2	—	—
	60	26	19918	20100	19780	26	—61.9	—58.2	—65.6	—	—
	50	26	20973	21199	20072	26	—57.7	—53.5	—60.3	—	—
	40	24	22520	22720	22220	24	—54.8	—51.9	—57.8	—	—
	30	21	24288	24522	24112	21	—50.7	—47.1	—54.6	—	—
	20	14	26981	27232	26810	14	—45.4	—40.1	—48.0	—	—
	10									—	—
Helwan 12000 U.T.	Surface	31	*992mb.	*995mb.	*989mb.	31	31.9	36.0	30.0	31	200
	1000	—	—	—	—	—	—	—	—	—	—
	850	25	1500	1523	1439	25	20.4	26.4	15.0	25	1.3
	700	25	3158	3194	3126	25	13.7	17.8	9.9	25	—13.2
	600	25	4441	4491	4400	25	7.0	10.1	5.0	25	—19.0
	500	24	5918	5985	5864	24	— 1.2	2.9	— 3.9	24	—25.3
	400	23	7706	7760	7594	23	—12.3	— 9.2	—17.0	23	—33.7
	300	23	9799	9921	9708	23	—28.3	—25.0	—30.1	23	—46.2
	250	23	11083	11221	11015	23	—37.4	—34.9	—39.8	22	—54.2
	200	22	12590	12733	12476	22	—48.2	—47.1	—50.5	22	—63.1
	150	21	14431	14586	14299	21	—61.3	—59.2	—64.0	4	—72.8
	100	21	16869	17038	16713	21	—73.1	—70.3	—77.0	—	—
	70	19	18919	19131	18825	19	—68.4	—63.2	—76.9	—	—
	60	15	19953	20090	19800	15	—62.2	—59.4	—66.1	—	—
	50	15	21061	21195	20897	15	—58.5	—56.9	—62.0	—	—
	40	12	22561	22700	22400	12	—55.5	—53.2	—59.2	—	—
	30	12	29322	24465	24146	12	—50.5	—48.0	—53.1	—	—
	20	8	27007	27152	26842	8	—44.4	—42.0	—48.3	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 12000 U.T.	Surface	31	*984mb.	*986mb.	*981mb.	31	38.3	42.4	35.0	31	8.8
	1000	—	—	—	—	—	—	—	—	—	—
	850	31	1506	1526	1477	31	23.4	28.0	21.8	31	— 1.6
	700	28	3171	3197	3134	28	14.7	17.8	11.2	28	—11.3
	600	23	4453	4485	4415	23	5.5	9.0	2.0	23	—17.2
	500	23	5920	5950	5865	22	— 2.8	2.1	— 7.0	22	—26.2
	400	23	7658	7711	7578	22	—12.9	— 8.0	—16.0	22	—34.7
	300	22	9790	9879	9698	22	—27.8	—23.9	—31.1	21	—46.9
	250	22	11075	11180	10954	22	—37.5	—33.9	—41.4	21	—54.7
	200	21	12578	12711	12503	21	—49.2	—46.9	—52.9	20	—64.0
	150	21	14410	14580	14214	21	—62.7	—58.5	—65.4	1	—77.4
	100	21	16829	16939	16624	21	—75.4	—69.8	—78.8	—	—
	70	21	18917	18976	18812	21	—69.7	—64.3	—74.6	—	—
	60	16	19888	20030	19810	16	—65.2	—62.1	—68.0	—	—
	50	16	20956	21120	20889	16	—60.8	—55.3	—63.8	—	—
	40	12	22460	22620	22280	12	—56.6	—55.7	—57.8	—	—
	30	12	24188	24380	24017	12	—51.7	—48.8	—54.8	—	—
	20	10	26867	27080	26753	10	—45.5	—41.6	—49.7	—	—
	10	—	—	—	—	—	—	—	—	—	—

N— The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE. THE HIGHEST WIND SPEED IN THE UPPER AIR

AUGUST — 1973

	Station	Freezing Level									Frist Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	5116 (31)	552 (31)	—17.8 (31)	5900	501	—23.5	4480	598	—11.0	16324 (27)	108 (27)	—12.5 (27)	17850	085	—76.0	15250	128	—70.4	12496	201	200	71
	Helwan . . .	5440 (25)	532 (25)	—20.3 (25)	6200	485	—16.7	4670	580	—26.0	16575 (18)	104 (18)	—75.1 (18)	18060	081	—77.1	15310	126	—73.0	29035	015	130	120
	Aswan . . (A)	5148 (27)	550 (27)	—19.0 (26)	5942	500	—23.4	4550	590	—19.0	16656 (22)	102 (22)	—77.8 (22)	17770	684	—81.0	15120	130	—73.0	15650	121	140	74
1200 U.T.											(N)	(N)	(N)										
	M. Matruh (A)	5246 (31)	546 (31)	—18.5 (31)	5880	512	—16.8	4660	562	—35.2	16557 (29)	105 (29)	—72.8 (29)	17730	086	—75.8	14600	140	—68.6	13045	184	200	57
	Helwan . . .	5696 (24)	511 (24)	—24.5 (24)	6460	472	—25.1	5200	548	—24.2	16449 (19)	107 (19)	—73.1 (19)	17550	059	—80.9	15680	122	—68.7	14290	158	215	110
	Aswan . . (A)	5390 (23)	536 (23)	—23.2 (22)	6350	478	—26.8	4640	580	—	16645 (19)	104 (19)	—75.6 (19)	17310	092	—77.3	15810	120	—70.3	14850	—	128	73

N = The number of cases the element has been observed during the month.

Table B 3.— NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

MERSA MATRUH (A) — AUGUST 1973

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360°)																						Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 T.U.	Surface	2	12	0	—	0	—	0	—	0	—	1	3	1	18	0	—	2	6	9	7	7	11	9	12	0	31	10
	1000	1	24	0	—	0	—	0	—	0	—	0	—	1	17	0	—	2	14	9	12	13	16	4	18	0	30	15
	850	4	12	0	—	0	—	0	—	0	—	0	—	0	—	2	14	0	—	3	10	10	16	11	19	0	30	16
	700	1	11	1	9	1	11	0	—	0	—	0	—	0	—	1	13	4	14	6	14	10	15	6	15	0	30	14
	600	1	5	1	14	0	—	0	—	0	—	0	—	0	—	1	14	7	17	9	13	5	19	5	11	0	29	14
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	27	12	20	7	18	4	13	2	9	0	28	19
	400	0	—	0	—	0	—	0	—	0	—	0	—	2	24	13	33	9	24	3	18	0	—	0	—	0	27	28
	300	0	—	0	—	0	—	0	—	0	—	0	—	2	32	15	34	6	28	1	17	0	—	0	—	0	24	31
	250	0	—	0	—	0	—	0	—	0	—	0	—	5	34	14	37	4	27	0	—	0	—	0	—	0	23	35
	200	0	—	0	—	0	—	0	—	0	—	1	49	4	33	14	37	1	33	2	34	0	—	0	—	0	22	37
	150	0	—	0	—	0	—	0	—	0	—	3	35	5	46	13	31	0	—	0	—	0	—	0	—	0	21	35
	100	0	—	0	—	0	—	0	—	2	24	8	28	5	28	4	38	0	—	0	—	0	—	0	—	0	19	23
	70	0	—	0	—	1	15	3	16	5	20	1	20	1	13	0	—	0	—	0	—	0	—	0	—	0	11	18
	60	0	—	1	9	2	25	2	18	1	30	1	19	0	—	0	—	0	—	0	—	0	—	0	—	0	7	20
	50	0	—	0	—	3	25	4	28	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	7	27
	40	0	—	0	—	2	40	3	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	35
	30	0	—	1	42	2	40	2	31	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	37
	20	—	—	0	—	1	40	1	43	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	42
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	15	25	15	0	31	15
	1000	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	22	—	—	0	—	7	17	13	16	0	21	17
	850	1	17	0	—	0	—	0	—	0	—	0	—	0	—	1	13	2	22	7	10	15	16	5	16	0	31	15
	700	2	11	4	11	0	—	0	—	0	—	0	—	0	—	1	8	4	11	7	17	10	12	3	14	0	31	13
	600	3	10	2	10	0	—	0	—	0	—	0	—	0	—	6	15	7	17	7	18	3	40	3	11	0	31	15
	500	2	8	0	—	0	—	0	—	0	—	0	—	0	—	10	23	11	16	4	18	3	19	1	23	0	31	18
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	16	29	9	24	4	21	2	11	0	—	0	31	26
	300	0	—	0	—	0	—	0	—	0	—	0	—	2	29	17	34	9	25	1	24	1	12	0	—	0	30	29
	250	0	—	0	—	0	—	0	—	0	—	0	—	3	27	21	31	4	24	0	—	0	—	0	—	0	28	30
	200	0	—	0	—	0	—	0	—	0	—	1	51	5	29	17	29	5	21	0	—	0	—	0	—	0	28	28
	150	0	—	0	—	0	—	0	—	0	—	1	28	11	30	14	28	0	—	0	—	0	—	0	—	0	26	28
	100	0	—	0	—	0	—	1	14	3	15	9	24	7	30	3	26	0	—	0	—	0	—	0	—	0	23	22
	70	0	—	0	—	0	—	9	25	7	24	0	—	1	11	0	—	0	—	0	—	0	—	0	—	0	17	25
	60	0	—	0	—	2	22	10	29	1	19	1	19	0	—	0	—	0	—	0	—	0	—	0	—	0	14	26
	50	0	—	0	—	5	28	8	27	0	—	0	—	1	17	0	—	0	—	0	—	0	—	0	—	0	14	28
	40	0	—	0	—	3	33	8	29	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	11	30
	30	0	—	0	—	2	37	6	36	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	36
	20	0	—	0	—	0	—	2	36	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	36
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N=The number of cases the element has been observed during the month.

TN=The total number of cases the wind has been observed for all directions during the month.

TABLE B 3. — NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

HELWAN — AUGUST 1973

Station	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360°)																						Number of Calm winds	Total Number of Observations (T N)	Mean Scalar Wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	18	6	8	6	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	6	0	31	6
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—
	850	8	13	6	18	3	12	1	23	0	—	0	—	0	—	0	—	0	—	1	2	3	8	3	8	0	25	12
	700	6	7	3	24	2	12	1	9	0	—	0	—	0	—	1	14	1	6	3	5	6	14	2	15	0	25	12
	600	5	17	3	12	1	4	0	—	0	—	0	—	0	—	0	—	2	21	8	11	3	18	3	14	0	25	14
	500	2	22	0	—	1	36	1	7	0	—	0	—	0	—	1	8	7	27	5	19	5	18	2	10	0	24	19
	400	0	—	0	—	0	—	0	—	0	—	1	20	0	—	3	19	8	32	4	17	6	16	1	22	0	23	23
	300	0	—	1	14	0	—	0	—	0	—	0	—	1	8	2	22	11	27	4	24	1	18	2	20	0	22	23
	250	0	—	1	1	1	15	0	—	0	—	0	—	1	24	5	22	12	31	2	13	0	—	0	—	0	22	25
	200	0	—	0	—	0	—	1	30	0	—	0	—	0	—	9	33	7	30	2	8	2	34	6	—	0	21	30
	150	0	—	0	—	0	—	0	—	0	—	0	—	4	34	10	41	4	42	0	—	0	—	0	—	0	18	39
	100	0	—	0	—	0	—	0	—	0	—	0	—	7	36	3	55	3	26	0	—	0	—	0	—	0	13	38
	70	0	—	1	48	0	—	0	—	2	36	4	24	3	24	0	—	0	—	0	—	0	—	0	—	0	10	29
	60	0	—	0	—	1	19	0	—	3	34	4	38	0	—	0	—	1	29	0	-	0	—	0	—	0	9	33
	50	0	—	0	—	2	57	2	52	2	27	1	66	1	35	0	—	0	—	0	—	0	—	0	—	0	8	46
	40	0	—	0	—	0	—	3	37	1	39	1	42	0	—	0	—	0	—	0	—	0	—	0	—	0	5	43
	30	0	—	0	—	0	—	3	43	1	53	1	63	0	—	0	—	0	—	0	—	0	—	0	—	0	5	49
	20	0	—	0	—	0	—	0	—	5	54	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	54
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	6	7	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	5	3	7	21	8	0	31	8
	1000	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—
	850	6	14	9	13	5	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	16	3	10	0	25	13
	700	2	11	2	8	0	—	2	6	0	—	2	6	0	—	1	6	2	12	5	14	6	8	3	17	0	25	11
	600	6	11	1	8	1	7	1	8	0	—	1	5	0	—	1	9	8	17	2	18	2	16	1	9	0	24	13
	500	1	18	1	26	1	15	0	—	0	—	0	—	0	—	1	9	6	24	5	17	5	16	3	15	0	23	19
	400	0	—	1	41	0	—	0	—	0	—	0	—	0	—	2	14	9	22	7	22	1	22	2	14	0	22	21
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	9	1	32	11	29	7	20	0	—	1	18	0	21	24
	250	0	—	0	—	0	—	1	7	0	—	0	—	0	—	2	18	12	31	3	19	2	16	1	6	0	21	24
	200	0	—	0	—	0	—	0	—	1	11	2	9	1	12	4	26	8	27	3	17	0	—	0	—	0	19	22
	150	0	—	0	—	0	—	0	—	1	36	1	19	3	41	7	34	3	28	2	26	1	8	0	—	0	18	31
	100	0	—	0	—	1	—	0	—	0	—	3	31	8	41	3	27	0	—	0	—	0	—	0	—	0	14	32
	70	0	—	0	—	0	—	0	—	3	37	6	36	0	—	0	—	0	—	0	—	0	-	0	—	0	9	38
	60	0	—	0	—	0	—	1	23	4	32	4	41	0	—	0	—	0	—	0	—	0	—	0	—	0	9	35
	50	0	—	0	—	0	—	1	19	6	36	2	16	0	—	0	—	0	—	0	—	0	-	0	—	0	9	30
	40	0	—	0	—	0	—	—	—	7	44	1	18	0	—	0	—	0	—	0	—	0	-	0	—	0	8	40
	30	0	—	0	—	1	40	4	37	3	36	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	37
	20	0	—	0	—	0	—	2	46	2	42	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	44
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed during the month.

TABLE B 3 (*contd.*)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

ASWAN (A)— AUGUST 1973

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000—360°)																						Number of Calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	12	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	11	15	12	0	30	12
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	11	12	4	8	0	—	1	9	0	—	1	13	0	—	0	—	3	9	2	12	1	13	5	9	0	28	11
	700	0	—	0	—	0	—	1	7	0	—	1	12	0	—	5	21	7	14	11	12	0	—	2	6	0	27	14
	600	1	6	2	2	0	—	0	—	0	—	0	—	0	—	4	20	9	14	4	18	2	8	1	6	0	23	13
	500	3	13	3	9	3	7	0	—	1	14	2	8	0	—	3	9	2	20	1	9	2	9	2	6	0	22	10
	400	1	10	7	15	3	13	1	16	2	12	4	13	2	10	0	—	1	6	0	—	0	—	0	—	0	21	11
	300	0	—	1	21	3	13	2	20	7	12	4	10	2	5	1	12	0	—	0	—	1	9	0	—	0	21	12
	250	0	—	1	22	0	—	6	19	8	13	3	9	1	16	0	—	1	10	0	—	0	—	0	—	0	20	15
	200	0	—	0	—	0	—	6	18	7	21	5	16	2	16	0	—	0	—	0	—	0	—	0	—	0	20	19
	150	0	—	0	—	0	—	2	24	14	25	3	40	0	—	0	—	0	—	0	—	0	—	0	—	0	19	28
	100	0	—	0	—	0	—	3	45	12	42	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	15	43
	70	0	—	0	—	1	20	5	34	2	27	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	31
	60	0	—	0	—	3	40	1	26	2	30	0	—	—	—	0	—	0	—	0	—	0	—	0	—	0	6	34
	50	0	—	0	—	2	38	3	37	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	37
	40	0	—	0	—	1	33	3	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	37
	30	0	—	0	—	0	—	2	47	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	47
	20	0	—	0	—	—	—	—	—	—	—	—	—	0	—	0	—	—	—	0	—	—	—	0	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	2	16	0	—	0	—	0	—	0	—	0	—	0	—	1	5	2	7	4	7	8	12	14	12	0	31	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	2	18	0	—	0	—	1	8	0	—	0	—	0	—	0	—	3	8	3	13	13	12	9	13	0	31	12
	700	3	18	0	—	0	—	0	—	0	—	0	—	0	—	4	19	13	24	7	22	1	20	0	—	0	28	22
	600	0	—	0	—	—	—	—	—	—	—	—	—	1	25	6	23	10	14	5	9	0	—	0	—	0	22	16
	500	2	13	4	8	2	11	3	7	1	7	1	6	3	21	3	7	2	18	1	2	0	—	0	—	0	22	10
	400	4	8	3	24	3	18	4	14	5	14	1	11	0	—	1	2	0	—	1	5	0	—	0	—	0	22	13
	300	0	—	0	—	4	17	7	17	8	14	1	2	0	—	0	—	0	—	1	14	0	—	0	—	0	21	15
	250	0	—	1	19	2	20	5	14	7	21	4	20	1	7	0	—	0	—	0	—	0	—	0	—	0	20	18
	200	0	—	0	—	1	12	6	20	9	25	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	18	21
	150	0	—	0	—	1	23	4	25	9	29	3	25	0	—	0	—	0	—	0	—	0	—	0	—	0	17	38
	100	0	—	0	—	0	—	7	45	4	42	1	42	0	—	0	—	0	—	0	—	0	—	0	—	0	12	41
	70	0	—	0	—	0	—	3	47	2	39	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	44
	60	0	—	0	—	0	—	1	36	1	51	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	44
	50	0	—	0	—	1	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	40
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	0	—	0	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	0	—	0	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	0	—	0	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.
TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — AUGUST 1973

For the month as a whole the mean daily air temperature was rather normal and the mean daily relative humidity was alove normal.

Mild summer weather prevailed the wbole month. The daily maximum air temperatures were slightly below normal, while the daily minimum air temperatures slightly above normal most days of the month.

The highest maximum soil temeratures were lower than the corresponding values of last August at depths between 2 and 20cm.with depatrtures between 3.6°C (at 2 cm.) and 0.8°C (at both 10 and 20 cm.). At 50 cm. depth the extreme maximum soil temperature was the same as last August, and at 100 cm. it was higher by 0.3°C. The lowest minimum soil temperature were higher than last August at depths between 2 and 10 cm. and at 100 cm. with departures between 1.3°C and 0.5°C ; and lower than last August at 20 and 50 cm. depths by 1.2°C and 0.2°C respectively.

The mean daily actual sunshine duration was higher than normal by only 0.1 hour. The mean daily wind speed at 1.5 met. was higher by 0.6 m./sec. than the corresponding value of August 1972.

TAHRIR — AUGUST 1973

For the month as a whole the mean daily air temperature was below normal and the mean daily relative humidity was slightly above normal.

The month was intervened by four heat waves on the 1st, in the periods (9th-13th), (24th-28th) and on the 31st. The first heat wave yielded the highest maximum air temperature for the month (39.6°C) together with the lowest relative humidity (28%). Apart from these heat waves mild summer weather was experienced.

The highest maximum soil temperatures were generally lower than the corresponding values of last August, except at 20 cm. where the value was higher by 0.2°C and at 100 cm. where the value was the same as last August, the departures varied between 1.4°C (at 2 cm.) and 0.5°C (at 50 cm.). The lowest minimum soil temperatures were lower than last August at all depths with departures between 1.4°C (at 5 cm.) and 0.4°C (at both 50 awnd 100 cm.).

The mean daily actual sunshine duration was higher than normal by 0.1 hour. The mean daily pan evaporation and wind speed at 1.5 met. were lower than normal by 1.63 mm. and 0.2 m./sec. respectively.

BAHTIM — AUGUST 1973

For the month as a whole the mean daily air temperature and relative humidity were rather normal.

Mild summer weather prevailed the whole month apart from a high heat wave on 1st yielding the highest maximum air temperature for the month (35.6°C).

The highest maximum soil temperatures were lower than the corresponding values of last August at all depths with slight departures between 0.2°C and 0.8°C. The lowest minimum soil temperatures were higher than last August at 2 and 100 cm., lower at 5 and 10 cm. and the same as last August at 20 and 50 cm. depths. All the departures were slight and varied between 0.2°C and 00.6°C.

The mean daily values of actual sunshine duration, wind speed at 1.5 met. and pan evaporation showed insignificant departures from the corresponding average values.

KHARGA — AUGUST 1973

For the month as a whole the mean daily air temperature was below normal and the mean daily relative humidity was slightly above normal.

The daily maximum air temperatures were below normal the whole month apart from three heat waves on the 1st, (11th-13th) and 25th. The first heat wave yielded the highest maximum air temperature for the month (42.6°C), the highest minimum air temperature (26.5°C) and the lowest relative humidity (12%).

The highest maximum soil temperatures were lower than the corresponding values of last August at all depths apart from 50 cm. where its value was the same as last August ; the departures varied between 5.0°C (at 2 cm.) and 0.1°C (at 100 cm.). The lowest minimum soil temperatures were lower than last August at all depths except at 100 cm. where its value was higher by 0.4°C, the departures ranged between 2.1°C (at 10 cm.) and 0.5°C (at 50 cm.).

The mean daily actual sunshine duration and wind speed at 1. 5met. were the same as normal. The mean daily pan evaporation was lower than normal by 1.55 mm.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND
AUGUST — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values									
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
M. Matruh	28.7	21.5	25.4	23.6	26.7	24	24	24	24	24	23.6	13.4	0.0	0.0	0.0	0.0
Tahrir	34.7	19.7	26.0	22.4	28.7	24	24	24	24	24	21.9	12.2	5.8	0.1	0.0	0.0
Bahtim	32.6	18.0	25.0	21.2	27.9	24	24	24	24	24	19.8	11.1	4.7	0.0	0.0	0.0
Kharga	37.6	22.9	30·7	27.9	33.2	24	24	24	24	24	23.9	21.4	12.7	5.5	0.2	0.0

Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS
AUGUST — 1973

STATION	Max. Temp. at 1½ metres				Min. Temp. at 1½ metres				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry Soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh.	30.2	9	27.6	12.22	25.0	1	19.0	31	18.0	14	—	—
Tahrir	39.6	1	32.9	7	23.4	9	16.8	16	15.8	16	14.0	27
Bahtim	35.6	1	31.5	15.22	20.6	3	15.6	31	13.5	15.16427	12.0	15
Kharga	42.6	1	35.4	3	26.5	1	18.6	25	16.6	25	—	—

Table C 3. (SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDIT & VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL
AUGUST — 1973

STATION	Solar+Sky Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity %				Vapour Pressure (mms)						Evaporation(mms)		Rainfall (mms)		
		Total Actual	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 UT	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount monthly	Max. fall in one day	Date
M. Matruh. . . .	518.3	371.9	412.1	90	78	68	45	1	18.9	19.2	24.1	1	12.4	1	5.0	7.23	0.0	0.0	—
Tahrir	503.0	368.6	410.7	90	71	44	28	1	17.2	16.2	22.8	1	11.7	1	5.6	9.49	0.0	0.0	—
Bahtim	539.7	346.1	409.6	84	72	47	36	1	16.5	16.3	21.5	1	12.0	19	6.5	7.89	0,0	0,0	—
Kharga.	541.1	374.9	403.1	93	30	21	12	1	9.6	9.6	15.4	2	5.5	11	16.3	18.14	0.0	0.0	—

TABLE C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS(cms.) IN DIFFERENT FIELDS

AUGUST — 1973

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
Marsa Matruh .	H	40.8	38.6	35.4	31.8	30.0	27.6	24.8	—								
	L	24.8	24.3	25.2	25.4	28.2	26.5	23.9	—								
Tahrir	H	53 0	47.3	42.1	37.8	33.4	31.7	29.6	28.1	36,4	34.7	33.0	30.9	29.4	28,5	27.4	—
	L	27.1	25.9	26.4	29.8	31.1	30.8	29.1	27.3	24.3	24.2	23.9	25.2	27.1	27.5	27.0	—
Bahtim	H	55.3	46.0	40.0	34.6	32.1	30.4	27.8	25.9	36.4	32.4	30.2	29.0	27,1	25,7	23.5	—
	L	29.2	27.6	29.0	31.8	31.4	29.8	26·7	24.9	23.2	23.4	24.4	25,9	26.3	25.4	22,4	—
Kharga.	H	54.7	48.4	43.4	38.6	36·0	33.5	31.1	29.7	—	—	—	—	—	—	—	—
	L	21.9	25.0	27.9	32.4	33.7	33.0	30.3	29.0	—	—	—	—	—	—	—	—

TABLE C 5.—SURFACE WIND

AUGUST — 1973

STATION	Wind Speed m/sec (1½ metres)			Days with surface wind speed at 10 metres.							Max. Gust (knots at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	value (knots)	Date
Marsa Matruh .	4.7	3.6	6.0	31	29	12	1	0	0	0	31	
Tahrir	2.1	1.3	2.9	31	11	0	0	0	0	0	16	25
Bahtim.	1.7	0.9	2.5	28	2	0	0	0	0	0	20	17,18
Khraga , , , ,	3.6	2.4	4.8	31	27	6	0	0	0	0	30	19430

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Chairman of the Board of Directors

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THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 16 NUMBER 9

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SEPTEMBER, 1973

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues serveral reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields

THE ARAB REPUBLIC OF EGYPT

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SEPTEMBER, 1973

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

SEPTEMBER 1973

Generally mild and humid in the north, hot and dry in the south.
A pronounced heat wave in the last week

PRESSURE DISTRIBUTION

The pressure distribution over Egypt was mainly influenced most of the month by the extension of the monsoon trough and the high pressure over the Mediterranean.

The pressure over Egypt was slightly above normal during the first three weeks and below normal during the last week.

SURFACE WIND

Light to moderate NE to NW winds prevailed most of the month. Fresh winds prevailed during several days in scattered places mainly in the Westem Desert, Upper Egypt and Red Sea districts.

TEMPERATURE

Apart from a light heat wave on the 21st, mild summer weather was enjoyed in the first three weeks.

The last week was characterized by a pronounced heat wave which affected all districts and was associated with high humidity in the north.

Maximum air temperatures were generally below normal in the first three weeks and markedly above normal in the last week.

The highest and lowest maximum air temperatures reported were 44.5° C at Asswan on the 29*th* & 25.8° C at Baltcam on the 17*th* respectively.

Minimum air temperatures showed irregular slight to moderate departures below and above normal.

The highest and lowest minimum air temperatures reported were 27.0° C at Aswan on the 30*th* & 13.2° C at Kom Ombo on the 24*th*.

PRECIPITATION

No rain was reported during this month

OTHER WEATHER PHENOMENA

Early morning low clouds or mist developed frequently during several days over Delta, Cairo & Middle Egypt.

Light rising sand was reported in few days in scattered places in the Western Desert, Upper Egypt and Red Sea districts.

Cairo, September 1975

Chairman (M. F. TAHA)
Board of Directors

SURFACE DATA

Table A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

SEPTEMBER — 1973

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms
			Maximum		Minimum		$\frac{A+B}{2}$	Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	Mean
Sallum. . . .	1013.9	+0.3	29.2	−0.1	21.1	+0.7	25.9	25.0	+0.3	21.2	+1.0	71	+7	—	—	—	6.2
Mersa Matruh. (A)	1013.6	−0.1	28.1	−0.5	20.1	+0.5	24.1	24.3	+0.1	21.9	+1.8	82	+15	319.0	371.1	86	4.2
Alexandria . (A)	1012.9	+0.2	29.5	0.0	21.0	−0.2	25.3	25.0	−0.7	21.3	+0.2	71	+3	321.5	372.8	86	4.9
Port Said.. . (A)	1011.6	−0.2	30.7	+1.4	23.1	−0.6	26.9	26.2	0.0	22.1	0.0	70	+1	322.6	372.8	86	5.0
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1011.2	−0.8	32.6	+0.1	17.2	0.0	24.9	23.9	−0.7	19.7	−0.3	70	+6	320.7	372.7	86	4.3
Cairo . . . . (A)	1011.8	−0.3	32.6	+0.2	20.3	+0.3	26.5	25.9	+0.1	20.6	+0.4	64	+6	—	—	—	10.1
Fayonm.	—	—	35.1	+1.3	19.3	−0.3	27.2	26.8	+0.2	20.2	+0.1	56	+3	—	—	—	7.6
Minya. . . . (A)	1010.9	−0.1	34.3	+0.9	17.9	−0.6	26.1	26.1	+0.4	19.3	−0.3	54	0	322.3	371.6	86	13.5
Assyout. . . (A)	1010.3	−0.1	34.5	−0.4	19.5	−0.6	27.0	26.8	−0.7	18.7	+0.1	45	+5	—	—	—	14.3
Luxor. . . . (A)	1008.2	−0.1	38.9	+0.4	21.1	−0.5	30.0	29.7	−0.4	19.0	−0.3	34	+2	—	—	—	12.1
Aswan. . . . (A)	1008.0	0.0	39.0	−0.6	22.9	+0.7	31.0	30.3	−0.3	17.6	+0.2	22	+3	—	—	—	25.2
Siwa	1013.2	0.0	34.4	−0.5	19.4	+0.9	26.9	27.1	+0.1	18.5	0.0	43	+3	319.4	372.2	85	13.3
Bahariya.	1011.8	−0.1	34.4	+0.3	19.4	+0.4	26.9	26.8	−0.2	18.4	−0.4	45	+3	—	—	—	11.0
Farafra.	1012.8	−0.3	35.1	+0.2	19.4	+0.3	27.3	27.4	+0.5	17.6	+0.8	35	+3	—	—	—	14.1
Dakhla	1011.4	+0.4	35.1	−0.6	19.3	−1.0	27.2	27.4	−0.7	17.2	−0.2	33	+4	—	—	—	19.7
Kharga	1010.0	+0.5	36.8	+0.2	21.6	+0.2	29.2	29.6	+0.2	17.9	0.0	32	+2	334.8	368.9	91	15.1
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1007.6	−0.5	32.2	+1.1	23.3	+0.2	27.8	27.9	+0.1	20.6	−0.3	49	−2	327.5	371.3	88	11.4
Quseir	1008.0	−0.4	30.7	−1.1	24.4	−0.8	27.6	27.8	−0.3	20.8	−0.4	51	−1	—	—	—	11.2

TABLE A2.— MAXIMUM AND MINIMUM AIR TEMPERATURE

SEPTEMBER — 1973

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	D. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Sallum	32.0	29	27.4	24	30	6	0	0	0	20.1	—	23.3	14	18.0	10	0	0	0	0
Mersa Matruh (A)	29.3	5	26.8	23	30	0	0	0	0	18.5	—	23.6	26	18.0	17.29	0	0	0	0
Alexandria (A)	33.3	27	28.0	16·17	30	4	0	0	0	18.4	—	23.1	2	18.1	11	0	0	0	0
Port Said (A)	33.2	28·29	29.3	15·16	30	20	0	0	0	22.6	—	25.4	28.29	21.4	11	0	0	0	6
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	37.2	27	29.0	17	30	27	3	0	0	—	—	20.2	1	14.0	12	0	0	0	0
Cairo (A)	37.9	27	29.5	17	30	29	3	0	0	—	—	22.8	27	17.8	19	0	0	0	0
Fayoum	41.2	27	31.8	17	30	30	13	1	0	17.2	—	21.9	27	17.0	12	0	0	0	0
Minya (A)	38.5	28	31.0	17	30	30	8	0	0	16.8	—	20.4	2,27	15 6	11 17	0	0	0	0
Assyout (A)	39.7	28	30.7	16	30	30	9	0	0	16.3	—	22.3	28	17.3	19	0	0	0	0
Luxor (A)	42.7	29	35.0	23	30	30	29	8	0	17.0	—	24.8	30	18.0	25	0	0	0	0
Aswan (A)	44.5	29	35.8	9	30	30	30	8	0	—	—	27.0	30	20.5	25	0	0	0	0
Siwa	37.4	1·13·21	30.4	17	30	30	12	0	0	18.0	—	23.9	1	15.6	19	0	0	0	0
Bahariya	38.6	28	30.8	17	30	30	10	0	0	18.7	—	22.4	1	16.6	17.19	0	0	0	0
Farafra	40.0	1	31.4	17	30	30	17	0	0	18.4	—	22.5	1	16.4	18	0	0	0	0
Dakhla	39.0	1	31.6	16	30	30	15	0	0	19.1	—	23.0	22	15 8	12	0	0	0	0
Kharga	40.0	1	32.9	16	30	30	26	0	0	19.7	—	26.2	2	17.4	11	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	35.7	22	30.2	18	30	30	1	0	0	—	—	25.8	13	20.4	26.27.28	0	0	0	0
Quseir	33.5	7	28.6	19	30	19	0	0	0	20.7	—	26.5	9	21.2	26	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

SEPTEMBER — 1973

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	Dev. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	1.0	1.2	2.7	0.6	1.3	0.0	— 1.8	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	1.2	1.8	0.7	1.3	1.3	0.0	— 1.2	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	3.5	3.0	2.6	2.7	2 9	0.0	— 1.2	0.0	—	0	0	0	0	0	0	0
Port Said (A)	1.5	1.6	0.6	0.8	1.2	0.0	— 0.2	0.0		0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	--	—	—	—	--	—	—	—	—	—	—	—	—
Tanta	0.8	2.2	1.1	0.0	1 1	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Cairo (A)	1.6	2.8	0.3	0.0	1.1	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Fayoum	—	1.2	0.1	0.0	—	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.0	0.7	0.1	0.0	0.1	0 0	— Tr.	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.0	0.0	0.0	0.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.1	0.5	0.2	0.1	0.3	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.2	1.0	0.6	0.1	0.5	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	1.0	0.4	0.3	0.5	0.5	0.3	+ 0.1	0.3	—	0	0	0	0	0	0	0
Bahariya	0.0	0.9	0.1	0.1	0.2	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.0	0.1	0.0	—	0.0	— 0.6	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.0	0.0	0.0	0.0	0.0	— 0.0	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.1	0.1	0 0	0.1	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.0	0.3	0 2	0.2	0 2	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Quseir	0.2	0.4	0.5	0 3	0.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0

Table A 4.—DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

SEPTEMBER 1973

STATION	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 Metres	Fog Vis < 1000 metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice Pellets	Hail											
Sollum	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Mersa Matruh (A)	0	0	0	0	0	0	7	0	0	0	1	0	0	22	0
Alexandria (A)	0	0	0	0	0	0	0	2	2	0	0	0	0	19	0
Port Said (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	15	0	0	0	0	0	0	25	0
Cairo (A)	0	0	0	0	0	0	19	3	2	0	1	1	0	24	0
Fayoum	0	0	0	0	0	0	0	0	0	0	1	0	0	30	—
Minya (A)	0	0	0	0	0	0	10	0	1	0	5	0	0	30	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	1	0	0	30	0
Luxor (A)	0	0	0	0	0	0	0	0	0	0	1	0	0	29	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	7	0	0	28	0
Siwa	0	0	0	0	0	0	0	0	0	0	4	0	0	27	0
Bahariya	0	0	0	0	0	0	0	0	0	0	1	0	0	30	0
Farafra	0	0	0	0	0	0	0	0	0	0	0	0	0	30	—
Dakhla	0	0	0	0	0	0	0	0	0	0	6	0	0	30	0
Kharga	0	0	0	0	0	0	0	0	0	0	5	0	0	30	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	8	0	0	30	2
Quseir	0	0	0	0	0	0	0	0	0	0	6	0	0	29	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

SEPTEMBER — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	11	3	0	1—10	61	153	96	40	15	3	6	2	1	41	120	158	696
				11—27	0	0	0	1	0	0	0	0	0	0	2	7	10
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**61**	**153**	**96**	**41**	**15**	**3**	**6**	**2**	**1**	**41**	**122**	**165**	**706**
Mersa Matruh . (A)	23	1	0	1—10	110	8	5	10	2	2	5	20	61	83	31	115	452
				11—27	54	14	3	0	0	0	0	0	3	2	8	160	244
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**164**	**22**	**8**	**10**	**2**	**2**	**5**	**20**	**64**	**85**	**39**	**275**	**696**
Alexandria . . . (A)	3	0	0	1—10	223	51	6	12	1	5	16	25	4	3	24	261	631
				11—27	25	10	0	0	0	0	0	0	0	0	2	19	86
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**248**	**61**	**6**	**12**	**1**	**5**	**16**	**25**	**4**	**3**	**26**	**310**	**717**
Tanta	10	0	0	1—10	160	**38**	13	4	2	1	5	13	51	77	134	147	645
				11—27	29	15	1	0	0	0	0	0	0	0	0	20	65
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**189**	**53**	**14**	**4**	**2**	**1**	**5**	**13**	**51**	**77**	**134**	**167**	**710**
Cairo . . . . . (A)	41	0	0	1—10	118	125	50	12	0	0	1	0	2	11	**68**	143	530
				11—27	60	35	0	4	0	0	0	0	0	0	1	53	149
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**178**	**160**	**50**	**12**	**0**	**0**	**1**	**0**	**2**	**11**	**69**	**196**	**679**
Fayoum	0	3	0	—10	353	298	27	1	0	0	0	0	0	0	5	29	713
				11—27	9	**2**	2	0	0	0	0	0	0	0	0	0	4
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**358**	**300**	**29**	**1**	**0**	**0**	**6**	**0**	**0**	**0**	**5**	**29**	**717**
Minya . . . . . (A)	2	0	0	1—10	353	78	0	1	1	1	6	3	1	2	7	41	494
				11—27	193	31	0	0	0	0	0	0	0	0	0	0	224
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**546**	**109**	**0**	**1**	**1**	**1**	**6**	**3**	**1**	**2**	**7**	**41**	**718**
Asyout . . . . . (A)	3	0	0	1—10	50	6	0	0	1	3	5	7	9	19	221	187	508
				11—27	110	4	0	0	0	0	0	1	0	0	2	92	209
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**160**	**10**	**0**	**0**	**1**	**3**	**5**	**8**	**9**	**19**	**223**	**279**	**717**

Table A 5 (*contd.*)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

SEPTEMBER 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Luxor (A)	117	0	0	1–10	38	8	2	4	8	28	107	38	28	72	150	95	578
				11–27	0	0	0	0	0	0	0	0	0	0	9	16	25
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**38**	**8**	**2**	**4**	**8**	**28**	**107**	**38**	**28**	**72**	**159**	**111**	**603**
Aswan (A)	21	0	0	1–10	113	71	1	1	0	0	0	0	0	3	19	171	382
				11–27	72	44	0	0	0	0	0	0	0	0	9	192	317
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**185**	**118**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**28**	**363**	**699**
Siwa	39	1	0	1–10	35	99	100	67	19	8	6	4	15	43	86	113	595
				11–27	6	20	11	3	0	0	0	0	0	2	21	22	85
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**41**	**119**	**111**	**70**	**19**	**8**	**6**	**4**	**15**	**45**	**107**	**135**	**680**
Dakhla	0	14	0	1–10	133	22	5	0	0	2	10	13	35	84	115	175	597
				11–27	62	16	1	0	0	0	0	0	0	0	2	28	109
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**198**	**38**	**6**	**0**	**0**	**2**	**10**	**13**	**35**	**84**	**117**	**203**	**706**
Kharga	1	0	0	1–10	117	31	10	9	5	2	5	2	5	4	35	96	334
				11–27	298	8	0	0	0	0	0	0	0	0	0	59	365
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**445**	**42**	**10**	**9**	**5**	**2**	**5**	**2**	**5**	**4**	**35**	**155**	**719**
Hurghada	21	0	0	1–10	52	37	3	0	0	2	2	0	0	0	64	105	265
				11–27	207	3	0	0	0	0	0	0	0	0	4	220	434
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**259**	**40**	**3**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**68**	**325**	**699**
Quseir	2	2	0	1–10	82	33	7	0	0	0	0	2	5	17	36	154	336
				11–27	250	52	0	0	0	0	0	0	0	0	1	77	380
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**332**	**85**	**7**	**0**	**0**	**0**	**0**	**2**	**5**	**17**	**37**	**231**	**716**

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

SEPTEMBER — 1973

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 0000 U.T.	Surface	30	*1013m.b.	*1015m.b.	*1011m.b.	30	22.9	25.2	17.4	30	19.1
	1000	30	137	158	123	30	21 7	24.4	19.0	30	19.1
	850	30	1537	1567	1508	30	16.1	26.4	10.5	30	5.2
	700	30	3161	3207	3119	29	7.1	11.8	0.0	29	— 8.1
	600	30	4415	44 5	4354	29	0.7	4.1	— 5.0	29	—15.1
	500	30	5856	5912	5782	30	— 8.1	— 4.0	—12.0	30	—23.2
	400	30	7555	7639	7481	30	—18.8	—10 4	—23.7	30	—31.8
	300	30	9645	9760	9529	30	—32.3	—26.8	—38.8	30	—44.0
	250	30	10911	11043	10751	30	—49.7	—33.7	—46.8	30	—52.4
	200	30	12394	12547	12209	30	—51.0	—48.1	—55.1	30	—61.1
	150	30	14216	14387	14003	30	—62.5	—59.9	—67.0	1	—68.7
	100	30	16660	16823	16432	30	—71 7	—65 9	—77 1	—	—
	070	28	18789	18933	18580	28	—67.6	—64 0	—72.5	—	—
	060	26	19743	19910	19510	26	—64.9	—60.1	—68.0	—	—
	050	26	20832	20988	20620	26	—61.7	—58.2	—67.5	—	—
	040	23	22227	22700	21880	23	—58 3	—55 9	—63.1	—	—
	030	22	24046	24215	23842	22	—54.8	—52.6	—57.0	—	—
	020	16	26677	26860	26445	16	—50 7	—47 8	—59.1	—	—
	010	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	30	*997m.b.	*998m.b.	*991m.b.	30	22.0	26.4	19.6	30	17.7
	1000	29	102	123	68	—	—	—	—	—	—
	850	29	1507	1527	1485	29	18.1	25.1	12.0	29	3.0
	700	29	3150	3180	3122	29	10 8	16.0	8.2	29	— 9.2
	600	39	4418	4468	4385	28	02 9	07.6	— 0.7	28	—17 3
	500	29	5871	5949	5833	29	— 6.0	— 1.7	— 8.4	29	—24.7
	400	28	7585	7689	7542	28	—16.5	—13.1	—19.4	28	—33.6
	300	28	9691	9830	9628	28	—30.9	—27.0	—33.4	28	—45.8
	250	28	10960	11120	10888	28	—40 5	—37.6	—43.0	28	—54.0
	200	28	12451	12631	12370	28	—51.0	—48.0	—54 4	28	—63.3
	150	27	14267	14473	14175	27	—64.0	—62.0	—65.9	—	—
	100	25	16687	16898	16575	25	—74.6	—69.5	—79.7	—	—
	70	20	18785	18975	18705	20	—69 6	—66.2	—73 0	—	—
	60	19	19761	19940	19670	19	—65.9	—63 3	—69.0	—	—
	50	19	20831	21001	20747	19	62.1	—60.1	—65.0	—	—
	40	19	22326	22480	22220	19	—58.5	—55 6	—60 8	—	—
	30	19	24052	24240	25979	19	—55 1	—53.1	—56.8	—	—
	20	15	26664	26785	26560	15	—50.4	—47.0	—53 1	—	—
	10	1	31120	31120	31120	1	—46.1	—46.1	—46.1	—	
Aswan 0000 U.T.	Surface	30	*987m.b.	*990m.b.	*984m.b.	30	25.7	31.6	22.0	30	—6.6
	1000	30	77	105	52	—	—	—	—	—	—
	850	30	1510	1533	1485	30	24.5	28.0	19.8	30	1.4
	700	28	3182	3206	3161	28	13.2	15.4	10.7	28	—4.7
	600	28	4453	4478	4426	28	1.8	5.4	— 0.4	28	—8.4
	500	28	5895	5923	5862	27	— 8.5	— 3.7	—12.8	27	—20.0
	400	27	7604	7647	7560	27	—16.6	—12.5	—19.7	27	—35 2
	300	26	9711	9776	9656	26	—31.1	—28.9	—36 7	26	—47.4
	250	26	10978	11044	10894	26	—41.0	—37.6	—47.4	25	—55.5
	200	25	12460	12544	12342	25	52.0	—49.2	—55 9	24	—64.5
	150	25	14270	14372	14125	25	—65.3	—63.1	—68.0	—	—
	100	24	16666	16782	16571	24	—77.8	—74.5	—81 9	—	—
	70	23	18730	18847	18621	23	—71 8	—66.5	—80.0	—	—
	60	21	19712	19830	19600	21	—66 9	—63.4	—70.5	—	—
	50	21	20768	20899	20631	21	—63.2	—52.2	—68 0	—	—
	40	19	22255	22410	24130	19	—60 1	—55 3	—62.9	—	—
	30	19	23857	24137	23810	19	—56.4	—52.4	—60.1	—	—
	20	14	26542	26734	26380	14	—51.3	—48 1	—55.7	—	—
	10	—	—	—	—	—	—	—	—	—	—

N — The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

UPPER AIR CLIMATOOGICAL DATA

Table B1 (*contd*).—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

SEBTEMBER —1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 1200 U.T.	Surface	30	* 1013m.b.	* 1015 m.b.	* 1011 m.b.	30	27 6	28 5	26 1	30	20.6
	1000	30	139	15.9	12.4	30	25 7	27 2	23 2	30	19.3
	850	30	1348	1572	1528	30	17 8	22.2	13 1	29	6.9
	700	30	3184	3219	3158	30	8 3	12 2	0 2	29	02.2
	600	30	4445	4458	4405	30	01.8	06.0	—02.0	29	—11.5
	500	30	5890	5943	5831	30	— 7.1	— 3.3	—12.1	30	—19.2
	400	30	7599	7670	7502	30	—17.5	—12.2	—24.0	29	—29.7
	300	30	9698	9802	9552	30	—30.6	—26 0	—36.3	29	—42.8
	250	30	10970	11080	10776	30	—39.3	—34.5	—44.5	29	—49.6
	200	30	12406	12590	12262	30	—49.6	—45.5	—54.0	28	—58.6
	150	30	14298	14430	14000	30	—61 3	—56.5	—66.0	6	—67.4
	100	30	16742	16886	16406	30	—70 7	—66.0	—76 6	—	—
	70	30	18892	19030	18656	30	—66.0	—60.0	—72 0	—	—
	60	28	19872	20160	19600	28	—62.3	—57.0	—69.0	—	—
	50	28	20964	21070	20786	28	—58.6	—53.5	—65.2	—	—
	40	23	22436	22580	22164	23	—54.3	—48.4	—61 0	—	—
	30	20	24233	24397	24056	20	—50 1	—42.1	—54.0	—	—
	20	15	26928	27079	26793	15	—46.7	—43.4	—50.6	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	30	* 995 m.b.	* 998m.b.	* 990m.b.	30	31.3	36.8	27.6	30	12.2
	1000	29	093	122	052	—	—	—	—	—	—
	850	29	1518	1534	1498	29	18.9	26.6	14.3	29	0.6
	700	29	3163	3186	3141	29	11.6	14.6	8.5	29	—13.2
	600	29	4434	4473	4403	29	4.1	8.5	0.8	29	—20.1
	500	29	5893	5956	5851	29	— 4.7	— 0.5	— 7.9	29	—26.9
	400	29	7615	7710	7556	29	—15 1	—10.2	—18.5	29	—35 7
	300	29	9731	9862	9656	29	—29.4	—27.4	—31.9	29	—47.2
	250	29	11009	11153	10930	29	—38.7	—34 6	—42.0	29	—55.2
	200	28	12509	12665	12412	28	—49.8	—46.6	—53.8	28	—64.0
	150	28	14340	14515	14229	27	—62 5	—59.9	—64 3	1	—73.6
	100	27	16777	16951	16659	26	—73 0	—67.0	—77.3	—	—
	70	24	18879	19020	18804	24	—68.8	—64.5	—73 2	—	—
	60	21	19866	19980	19710	21	—64.2	—61.1	—67.4	—	—
	50	21	20949	21078	20786	21	—59.9	—56 8	—67.4	—	—
	40	19	22448	22550	22250	19	—55.4	—53 2	—59.0	—	—
	30	19	24212	24357	25995	19	—50.8	—49.1	—54.7	—	—
	20	15	26890	27033	26651	15	—45.5	—43.4	—47.2	—	—
	10	2	31587	31610	31564	2	—38.8	—37.7	—39.8	—	—
Aswan (A) 1200 U.T.	Surface	28	* 996m.b.	* 989m.b.	* 984m.b.	28	37.2	40.0	35.0	28	8.8
	1000	28	068	093	044	—	—	—	—	—	—
	850	28	1522	1549	1493	28	25.3	29.6	20.4	28	— 0.8
	700	28	3196	3240	3162	27	14.6	19 0	10.8	25	— 8.0
	600	22	4476	4532	4430	21	3.6	7.0	— 0.8	20	—12.7
	500	21	5928	5982	5865	20	— 7.4	— 2.9	—12.9	20	—21.5
	400	21	7664	7693	7568	20	—14 8	—10.5	—17.9	20	—35.8
	300	20	9758	9832	9666	20	—29 1	—26.3	—31.1	20	—47.7
	250	20	11036	11128	10936	20	—39.2	—36.1	—41.5	20	—54.6
	200	20	12550	12643	12415	20	—50.7	—47.5	—53.7	20	—65.4
	150	20	14358	14495	14207	20	—63.9	—61.0	—66.3	—	—
	100	19	16749	16920	16585	19	—76.9	—73.8	—80.4	—	—
	70	19	18826	18957	18632	19	—71.9	—67.7	—76.8	—	—
	60	17	19759	19950	19540	17	—66.2	—60.8	—69.7	—	—
	50	17	20872	21017	20662	17	—61.0	—57.9	—63.3	—	—
	40	13	22378	22570	22150	13	—57 2	—54.8	—60.1	—	—
	30	12	24127	24257	24013	12	—53.8	—50.8	—58.3	—	—
	20	8	26823	26938	26643	8	—46.5	—42.7	—49.0	—	—
	10	1	31407	—	—	1	—39.7	—	—	—	

N— The number of cases the element has been observed during the month.

* atmospheric pressure corrected to the elevation of the radiosonde station.

Table B 2.– MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE. THE HIGHEST WIND SPEED IN THE UPPER AIR

SEPTEMBER – 1973

	Station	Freezing Level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000–360)	Speed in Knots
0600 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh (A)	4488 (30)	596 (30)	–15.3 (29)	5180	548	–13.5	3150	709	– 3.7	16099 (28)	111 (28)	–71.6 (28)	17750	084	–78.5	15120	128	–67.5	12742	187	240	80
	Helwan	4901 (29)	567 (29)	–19.6 (29)	5710	516	–31.7	4230	616	– 8.6	16346 (20)	105 (20)	–74.6 (20)	17590	086	–76.0	15280	126	–70.3	13110	178	200	135
	Aswan . . . (A)	4734 (28)	581 (28)	–11.1 (26)	5220	546	—	4400	663	– 7.3	16721 (22)	099 (22)	–78.8 (22)	18040	080	–81.1	15150	109	–76.0	16150	113	110	54
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh (A)	4726 (30)	570 (30)	–13.2 (29)	5300	540	–21.5	3850	645	– 7.9	16233 (30)	110 (30)	–71.4 (30)	16845	100	–75.0	15020	131	–67.6	12250	205	210	98
	Helwan	5099 (29)	551 (29)	–22.7 (29)	5870	505	–24.2	4260	614	–23.5	16370 (24)	107 (25)	–73.4 (25)	17380	093	–77.6	15010	114	–73.1	13430	196	240	90
	Aswan . . . (A)	4923 (21)	571 (21)	–14.9 (21)	5370	538	–22.0	4380	607	–14.2	16660 (18)	102 (18)	–77.0 (18)	17500	089	–78.4	15700	120	–73.5	19665	062	100	65

N = The number of cases the element has been observed during the month.

Table B3.— NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

MERSA MATRUH (A) — SEPTEMBER 1973

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360)°																						Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	8	7	0	—	0	—	0	—	1	7	0	—	1	2	0	—	4	7	4	7	3	7	9	7	0	30	7
	1000	7	11	0	—	0	—	1	10	1	4	0	—	0	—	1	15	1	7	6	12	7	14	6	11	0	30	12
	850	5	17	2	20	1	8	0	—	0	—	0	—	1	7	3	11	2	12	2	10	8	20	6	11	0	30	15
	700	3	21	1	18	0	—	1	4	1	17	0	—	0	—	3	22	2	24	8	12	5	17	4	14	0	28	16
	600	1	9	1	15	0	—	0	—	0	—	0	—	0	—	4	26	2	24	10	16	5	18	4	12	0	27	17
	500	2	24	0	—	0	—	0	—	0	—	0	—	0	—	3	30	11	27	5	15	6	17	0	—	0	27	22
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	37	11	30	8	29	0	—	0	—	0	26	32
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	15	50	9	47	1	43	0	—	0	—	0	25	49
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	19	50	6	52	0	—	0	—	0	—	0	25	50
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	19	53	6	46	0	—	0	—	0	—	1	25	51
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	18	48	5	40	0	—	0	—	0	—	0	23	46
	100	0	—	0	—	0	—	0	—	0	—	0	—	4	20	14	26	4	26	0	—	0	—	0	—	0	22	25
	70	0	—	1	8	2	16	4	17	3	15	4	13	2	18	2	29	0	—	0	—	0	—	0	—	1	18	17
	60	0	—	1	17	5	13	4	12	2	12	4	25	1	14	0	—	0	—	0	—	0	—	0	—	0	17	17
	50	—	—	3	18	4	16	6	14	1	23	1	45	1	5	0	—	0	—	0	—	0	—	0	—	1	17	17
	40	0	—	1	22	7	19	3	22	0	—	1	37	0	—	0	—	0	—	0	—	0	—	0	—	0	12	22
	30	0	—	2	22	6	27	2	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	10	26
	20	0	—	0	—	4	31	2	34	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	6	32
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	6	11	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	15	20	12	0	30	12
	1000	4	15	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	14	15	12	14	0	30	15
	850	1	12	2	20	0	—	1	7	1	10	0	—	2	9	2	8	3	15	7	13	10	17	1	17	0	36	14
	700	1	29	1	26	3	11	1	18	0	—	2	14	1	4	2	9	1	13	9	16	7	16	2	8	0	30	15
	600	2	14	3	15	0	—	0	—	0	—	0	—	2	10	5	18	8	15	7	12	2	19	1	12	0	30	14
	500	1	5	1	11	0	—	0	—	0	—	0	—	1	7	9	30	10	24	6	12	2	16	0	—	0	30	21
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	14	38	9	30	3	27	3	30	1	19	0	30	33
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	17	46	10	43	3	40	0	—	0	—	0	30	44
	250	0	—	0	—	0	—	0	—	0	—	0	—	1	30	17	50	9	36	2	32	0	—	0	—	0	29	40
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	18	46	6	49	1	46	1	39	0	—	0	26	47
	150	0	—	0	—	0	—	0	—	0	—	0	—	3	44	16	43	5	40	0	—	0	—	0	—	0	24	43
	100	0	—	0	—	1	14	0	—	0	—	3	27	2	23	10	29	2	20	2	17	0	—	0	—	0	20	26
	70	0	—	1	14	2	14	3	16	1	8	1	33	0	—	1	11	0	—	1	9	0	—	0	—	0	10	15
	60	0	—	1	22	3	20	3	23	2	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	9	19
	50	0	—	0	—	2	15	4	18	1	16	0	—	0	—	0	—	0	—	1	26	0	—	0	—	0	8	18
	40	0	—	0	—	2	34	4	25	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	7	26
	30	0	—	0	—	0	—	3	36	1	18	0	—	1	22	0	—	0	—	0	—	0	—	0	—	0	5	30
	20	0	—	0	—	1	32	1	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	26
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

TABLE B 3 *(contd.)*—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

HELWAN— SEPTEMBER 1973

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000—360°)																						Number of Calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	15	5	11	7	2	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	4	1	30	6
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	12	15	6	13	1	28	2	15	0	—	0	—	0	—	0	—	0	—	1	12	2	4	5	10	0	29	14
	700	3	13	1	21	0	—	0	—	0	—	1	7	1	5	2	6	3	22	5	11	7	12	6	9	0	29	12
	600	0	—	1	11	0	—	0	—	0	—	0	—	0	—	2	14	9	13	11	16	3	9	3	15	0	29	15
	500	1	15	0	—	1	21	0	—	0	—	0	—	0	—	2	10	12	27	10	21	3	18	0	—	0	29	22
	400	1	9	0	—	0	—	0	—	0	—	0	—	0	—	1	24	17	31	8	25	1	30	0	—	0	28	28
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	30	15	32	9	34	2	30	0	—	0	28	33
	250	0	—	0	—	0	—	0	—	0	—	0	—	1	26	0	—	17	34	8	38	2	33	0	—	0	28	35
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	53	15	38	8	42	1	44	0	—	0	27	41
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	33	14	32	5	43	1	36	0	—	0	24	35
	100	0	—	0	—	0	—	0	—	0	—	2	21	3	28	7	18	6	22	0	—	0	—	0	—	0	18	21
	70	0	—	0	—	0	—	3	19	1	18	6	13	2	11	2	18	2	13	1	3	1	5	0	—	0	18	14
	60	0	—	0	—	0	—	7	12	3	14	2	10	2	10	1	22	1	34	1	4	1	17	0	—	0	18	14
	50	0	—	0	—	3	12	9	18	3	18	1	20	1	10	0	—	1	3	0	—	0	—	0	—	0	18	15
	40	0	—	0	—	1	35	11	21	4	27	1	12	0	—	1	1	0	—	0	—	0	—	0	—	0	18	21
	30	0	—	0	—	2	20	11	25	1	10	1	23	0	—	0	—	1	4	0	—	0	—	0	—	0	16	22
	20	0	—	0	—	0	—	4	57	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	49
	10	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T	Surface	10	7	4	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	6	1	5	12	8	0	30	8
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	9	10	8	12	3	12	0	—	1	3	0	—	0	—	1	17	0	—	0	—	2	7	5	12	0	29	11
	700	1	7	3	11	0	—	1	17	1	12	0	—	0	—	2	33	5	20	8	14	3	12	5	14	0	29	16
	600	1	8	0	—	0	—	0	—	0	—	2	24	1	16	2	17	13	22	8	12	0	—	2	14	0	29	18
	500	1	10	1	9	0	—	0	—	0	—	0	—	0	—	1	21	13	28	10	19	3	20	0	—	0	29	23
	400	1	17	0	—	0	—	0	—	0	—	0	—	0	—	1	13	11	31	11	25	5	36	0	—	0	29	27
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	14	36	11	32	3	36	1	39	0	29	35
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	15	31	9	42	2	36	2	25	0	28	34
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	36	13	36	10	38	3	29	0	—	0	28	36
	150	0	—	0	—	0	—	0	—	0	—	0	—	1	13	6	30	15	37	3	38	2	28	1	21	0	28	34
	100	1	24	0	—	0	—	0	—	0	—	0	—	3	14	8	20	3	29	7	23	2	14	0	—	0	24	20
	70	0	—	1	8	0	—	4	15	7	18	2	12	3	12	1	18	1	18	2	18	0	—	0	—	0	21	16
	60	0	—	0	—	0	—	6	18	9	18	1	10	2	16	1	10	0	—	1	11	0	—	0	—	0	20	16
	50	0	—	0	—	0	—	7	18	9	20	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	18	19
	40	0	—	0	—	2	16	5	18	9	19	2	20	0	—	0	—	0	—	0	—	0	—	0	—	0	18	19
	30	0	—	0	—	1	14	4	17	9	20	2	18	0	—	0	—	0	—	0	—	0	—	0	—	0	16	19
	20	0	—	0	—	3	21	3	30	4	28	0	—	1	9	0	—	0	—	0	—	0	—	6	—	0	11	25
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	0	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been obeserved for all directions during the month.

Table B 3.—(*contd.*) NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A) SEPTEMPER 1973

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360°)																						Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) N	N	(ff) m			
Aswan 0000 U.T.	Surface	22	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	11	0	30	12
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	8	5	13	2	7	2	8	1	2	0	—	0	—	1	18	1	4	3	8	6	7	5	9	0	29	9
	700	1	3	0	—	0	—	0	—	1	23	2	6	5	8	7	17	8	16	3	22	0	—	0	—	0	28	14
	600	0	—	0	—	0	—	0	—	0	—	0	—	3	16	7	17	7	14	1	12	0	—	0	—	0	28	16
	500	0	—	1	4	0	—	0	—	0	—	2	15	6	13	8	15	4	12	3	10	3	10	0	—	0	27	13
	400	1	16	3	10	2	4	0	—	0	—	0	—	8	9	4	8	3	6	1	5	1	17	1	3	0	24	8
	300	0	—	2	16	1	21	1	19	1	9	3	11	4	12	6	17	2	8	2	12	1	8	1	9	0	24	13
	250	0	—	3	9	1	8	1	10	2	17	3	15	3	19	6	15	1	14	2	12	1	14	1	3	0	24	14
	200	0	—	0	—	0	—	3	9	3	19	4	20	5	18	2	11	2	13	2	8	0	—	2	12	0	23	15
	150	0	—	1	9	1	9	0	—	7	24	5	24	7	21	2	8	0	—	0	—	0	—	0	—	0	23	20
	100	0	—	0	—	0	—	2	21	7	32	9	23	2	16	1	18	0	—	0	—	0	—	0	—	0	21	25
	70	0	—	0	—	1	13	10	26	4	25	0	—	0	—	1	26	0	—	0	—	0	—	0	—	0	16	25
	60	0	—	0	—	2	16	6	28	3	22	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	11	24
	50	0	—	0	—	2	21	5	28	1	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	27
	40	0	—	0	—	0	—	1	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	30
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface	19	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	7	12	1	28	12
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	10	1	9	0	—	0	—	0	—	0	—	0	—	2	7	1	15	3	8	10	12	7	10	0	27	11
	700	0	—	0	—	0	—	0	—	0	—	0	—	3	11	11	19	11	18	1	19	1	2	0	—	0	27	17
	600	0	—	0	—	0	—	0	—	0	—	0	—	8	16	9	13	4	20	1	17	0	—	0	—	0	22	16
	500	1	7	1	5	0	—	0	—	1	9	2	20	8	18	5	14	0	—	3	11	0	—	0	—	0	21	14
	400	0	—	0	—	3	15	1	4	2	6	2	8	4	10	4	9	1	10	2	8	0	—	2	14	0	21	10
	300	0	—	1	13	1	8	2	12	2	14	5	9	2	12	3	14	1	11	1	8	1	13	1	21	0	20	12
	250	1	23	0	—	1	20	1	12	1	18	7	12	5	14	2	17	1	10	1	11	0	—	0	—	0	20	14
	200	0	—	2	13	0	—	1	17	2	16	5	12	6	15	2	18	2	14	0	—	0	—	0	—	0	20	14
	150	0	—	1	24	1	28	1	13	5	15	3	22	5	19	3	18	0	—	0	—	0	—	0	—	0	19	19
	100	0	—	0	—	2	16	2	32	9	28	3	21	1	8	0	—	0	—	0	—	0	—	0	—	0	17	25
	70	0	—	0	—	1	22	3	26	2	31	1	25	0	—	0	—	0	—	0	—	0	—	0	—	0	7	27
	60	0	—	0	—	0	—	4	29	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	29
	50	0	—	0	—	0	—	3	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	32
	40	0	—	0	—	0	—	2	40	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	34
	30	0	—	0	—	1	34	1	37	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	36
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH - SEPTEMBER 1973

for the month as a whole the mean daily air temperature was rather normal and the mean daily relative humidity was markedly above normal. The month was rainless against 1.2 mm. for monthly rainfall.

Mild and humid weather prevailed the whole month. The daily maximum air temperatures were rather normal.

The highest maximum soil temperatures showed irregular shight departures between 0.1° and 0.6° C from the corresponding values of last September. The lowest minimum soil temperatures were lower than last September at all depths with departures between 1.1° C (at both 5,10 cm.) and 0.2° C (at 50 cm.)

The mean daily actual sunshine duration was lower than normal by 0.5 hour. The mean daily wind speed at 1.5 met. height was lower ly 1.0 m./sec than the corresponding value of September 1972.

TAHRIR- SEPTEMBER 1973

This month was rather normal as regards the mean daily air temperature and relative humidity.

The daily maximum air temperatures were generally above normal apart from two short mild periods on the 2*nd* and from the 15*th* to the 17th. The highest maximum air temperature for the month was 38.9° C reported on the 27*th*, and the lowest maximum air temperature was 31.4° C reported on the 17*th*. The daily minimum air tempertaure were below normal most days of the month. The highest minimum air temperature for the month was 20.4° C reported on the 7*th*, and the lowest minimum air temperature was 15.2°C reported on the 15*th*.

The highest maximum soil temperatures were lower than the corresponding values of last September by 0.4°C to 1.0°C at all depths apart from 20 cm. where the value was the same as last September. The lowest minimum soil temperature was higher than last September at 2 cm. depth by 0.3°C, and lower at all other depths with departures between 1.2°C (at 20 cm.) and 0.3°C (at 50 cm.).

The mean daily actual sunshine duration washigher than normal by 0.3 hour. The mean daily pan evaporation and wind speed at 1.5 met. height were lower than normal by 1.14 mm. and 0.2 m./sec. respectively.

BAHTIM- SEPTEMBER 1973

This month was rather normal as regards the mean daily air temperature and relative humidity.

Mild weather prevailed from the beginning of the month till the 19th. Two heat waves were experienced in the periods (20*th* & 21*st*), (24*th*-29th). The second heat wave was the more pronounced. yielding the highest maximum air temperature for the month (36.7°C) on the 27*th*.

The highest maximum soil tempertures showed irregular slight departures (0.1°C to 0.2°C) from the corresponding values of September 1972. The lowest minimum soil temperatures were lower than the corresponding values of September 1972 at all depths with departures between 2.8°C (at 2 cm.) and 0.3°C (at both 50 and 100 cm.).

The mean daily actual sunshine duration, par evaporation and wind speed at 1.5 met. height were lower than normal by 0.5 hour, 0.04 mm. and 0.2 m./sec. respectively.

KHARGA—SEPTEMBER 1973

For the month as a whole the mean daily air temperature and relative humidity were rather normal.

Three short heat waves were experienced on the 1*st*, 22*nd* and the peirod (27*th* - 29*th*). The first heat wave yielded the highest maximum air temperature for the month 40.0°C. Apart from these heat waves mild summer weather prevailed with subnormal maximum air temperatures.

The highest maximum soil temperatures were higher than the corresponding values of last September at depths between 2 and 5 cm. with departures between 1.6°c and 2.0°c ; and lower than last Saptember at depths between 20 and 100 cm. with departurs bet een 0.2°C and 0.6°C. The lowest minimum soil temperatures were lower than last September at all depths with departures between 2.5°c (at 10 cm.) and 0.5°c (at both 2,100 cm.).

The mean daily actual sunshine duration, wind speed at 1.5 met. and pan evaporation were slightly lower than the corresponding normal values.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

SEPTEMBER — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	—5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Mersa Matruh .	28.1	20.1	24.4	22.4	26.3	24	24	24	24	24	22.1	10.2	0.0	0.0	0 0	0.0
Tahrir	34.1	17.7	24.6	20.7	28.6	24	24	24	24	24	18.0	10.4	4.1	0.2	0.0	0.0
Bahtim	32.6	16.1	23.9	19.7	28.2	24	24	24	24	23.6	15 9	9.8	4.0	0.2	0.0	0.0
Kharga	36.8	21.6	29.6	26.6	32.7	24	24	24	24	24	23.7	19.8	11.1	3.6	0.0	0.0

Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS

SEPTEMBER — 1973

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Mersa Matruh . . .	29.3	5	26.8	23	23.6	26	18.0	17,29	14.0	29	—	—
Tahrir	38.9	27	31.4	17	20.4	7	15.2	15	13.3	15	12.6	15
Bahtim	36.7	27	30.3	17	18.9	1	13.3	12	10.2	19	9.5	19
Kharga	40.0	1	32.9	16	26.2	2	17.4	11	15.2	26	—	—

Table C 3. — (SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL

SEPTEMBER — 1973

STATION	(Solar+Sky) Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. fall in one day	Date
M. Matruh	465.6	319.0	317.1	86	82	71	55	3	18.7	19.7	24.2	2	14.4	29	4.2	6.75	0.0	0.0	—
Tahrir . .	432.1	319.1	370.6	86	71	41	23	10	15.8	14.4	20.7	27	9.5	10	5.2	8.28	0.0	0.0	—
Bahtim . .	466.7	273.8	370.6	81	68	39	26	12,27	14.5	13.5	19.7	1	9.2	12	6.8	8.13	0.0	0.0	—
Kharga .	479.6	334.8	368.9	91	32	21	15	14	9.6	9.3	14.8	5	6.5	21	15.1	17.90	0.0	0.0	—

Table C 4.—EXTREME SOIL TEMPERATURE AT DFFERENIT DEPTHS (cms) IN DIFFERENT FIELDS

SEPTEMBER — 1973

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) at different depths (cms.) in **dry field.**								Extreme soil temperature (°C) at different depths (cms.) in **grass field.**							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
Mersa Matruh	H	39.2	37.1	33.0	30.1	29.0	27.0	25.1	—	—	—	—	—	—	—	—	—
	L	21.9	21.4	22.2	25.2	27.0	25.8	24.7	—	—	—	—	—	—	—	—	—
Tahrir . . .	H	48.9	44.1	39.3	35.0	31.9	30.9	29.4	28.2	35.9	34.0	32.5	30.0	28.5	27.9	27.3	—
	L	24.7	23.4	24.2	27.5	29.4	29.5	28.7	28.0	22.1	22.2	22.2	23.8	25.9	26.7	26.8	—
Bahtim . . .	H	51.9	44.5	38.6	34.0	31.9	30.4	28.2	26.5	34.2	30.8	28.6	27.6	26.5	25.7	23.8	—
	L	24.8	24.0	26.4	29.9	30.3	29.7	27.8	25.9	21.6	21.8	23.0	24.6	25.1	25.0	23.5	—
Kharga . . .	H	54.5	48.2	42.3	36.6	34.2	33.0	31.2	30.1	—	—	—	—	—	—	—	—
	L	19.3	22.7	25.4	29.5	31.8	32.0	31.0	29.6	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

SEPTEMBER— 1973

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres							Max. Gust (knst at 10 metreos)	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	Value knots	Date
Mersa Matruh	3.4	2.3	4.6	30	26	8	0	0	0	0	27	30
Tahrir	1.8	1.1	2.6	30	9	1	0	0	0	0	29	27
Bahtim. . . .	1.7	0.9	2.5	26	6	1	0	0	0	0	31	27
Kharga. . . .	4.1	2.8	5.3	30	26	13	4	2	0	0	38	15

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on the tables please refer to Volume 16, Number 1 (January 1973).

GENERAL SUMMARY OF WEATHER CONDITIONS

OCTOBER 1973

Generally mild with deficient rainfall in north, hot in south.

PRESSURE DISTRIBUTION

The pressure distribution was mainly influenced most of the month by the complex monsoon low pressure over Arabia and Sudan, and the weak high pressure extending from the Mediterranean through NE Africa.

Three shallow depressions passed through the East Mediterranean on the 11th, 24th and 30th.

SURFACE WIND

Light to moderate Nly and NWly winds prevailed most of the month. Winds freshened during few days in scattered localities mainly in the Red Sea and Western Desert districts.

TEMPERATURE

Four light heat waves prevailed most of the month. The second wave was the most pronounced in Lower Egypt with its peak on the 11th, while the third wave was the most pronouunced in Upper Egypt with its peak on the 18th.

Maximum air temperatures were moderately above normal in general during the heat waves, and slightly below normal otherwise.

The highest, and lowest maximum air temperatures reported were 43.0°C at Qena on the 18 and 22°C at Sidi Barrani on the 31st repectively.

Minimum air temperatures showed ingular slight to moderate departures from normal, in general.

The highest, and lowest minimum air temperatures reported were 26.0°C at Kharga on the 19th and 8.9°C at Dakhla on the 31st respectively.

PRCIPITATION

This month was rainless apart from light rain over few scattered localities during few days.

The maximum daily rainfall was 7.1 mm. at Sidi Barrani on the 31st.

The maximum monthly rainfall was 14.4 mm. reported at Sidi Barrani.

OTHER WEATHER PHENOMENA

Early morning mist developed during several days over scattered parts in Delta, Cairo and Middle Egypt.

Chairman (M. F. TAHA)

Board of Directors

Cairo, November 1975

SURFACE DATA

Table A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

OCTOBER — 1973

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms.
			Maximum		Minimum		$\frac{A+B}{2}$	Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	Mean
Sallum	1014.9	—1.0	27.9	+0.6	19.2	+1.2	23.6	23.2	+0.9	18.9	+0.9	66	+4	—	—	—	5.7
Mersa Matruh (A)	1015.2	—1.1	26.9	—0.4	17.3	+0.4	22.0	22.0	+0.4	18.8	+1.0	75	+9	298.4	353.5	84	4.7
Alexandria (A)	1014.9	—0.9	28.1	+0.4	18.2	+0.6	23.2	22.9	+0.3	19.1	+0.3	70	+2	303.6	354.2	85	4.4
Port Said (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1014.3	—0.8	30.6	- 0.6	15.3	+0.1	23.0	22.1	+0.1	18.3	+0.4	72	+7	310.4	354.6	87	4.4
Cairo (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fayoum	—	—	32.3	+0.7	16.9	—0.3	24.6	24.1	+0.2	18.3	+0.3	58	+4	—	—	—	6.2
Minya (A)	1013.1	—1.1	32.5	+1.2	15.6	+0.1	24.1	23.7	+0.6	17.2	—0.1	53	—1	317.1	356.7	88	11.7
Assyout (A)	1012.6	—0.9	33.1	+1.9	17.0	—0.8	25.1	24.7	+0.4	16.2	—0.8	40	—4	—	—	—	13.9
Luxor (A)	1011.0	—0.8	36.9	+1.9	17.6	0.0	27.3	26.8	+1.6	17.2	—0.6	36	—5	—	—	—	10.4
Aswan (A)	1010.5	—0.6	37.3	+1.0	20.9	+1.6	29.1	28.6	+0.8	16.2	+0.4	23	+1	—	—	—	19.8
Siwa	1014.7	—1.0	30.5	—1.0	15.5	+0.5	23.0	22.8	—0.3	16.4	+0.4	51	+7	310.4	355.8	87	9.7
Bahariya	1013.9	—0.8	31.5	+0.4	16.7	+0.6	24.1	23.8	+0.1	16.7	+0.1	48	+4	—	—	—	9.0
Farafra	1014.7	—1.3	32.0	+0.8	16.1	+0.7	24.1	23.8	+0.6	15.3	+0.8	38	+1	—	—	—	11.1
Dakhla	1013.3	—0.3	33.6	+1.4	14.8	—2.1	24.2	24.1	—0.3	15.6	+0.1	40	+8	—	—	—	15.8
Kharga	1012.1	—0.4	34.9	+0.9	18.6	—0.1	26.8	27.0	—0.2	15.8	—0.1	32	0	330.5	358.6	92	15.1
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1011.2	—0.8	30.6	+1.7	20.8	+1.0	25.7	25.8	+0.9	19.5	+0.4	53	—2	320.4	357.5	89	9.9
Ouseir	1011.2	—1.0	29.6	—0.4	22.6	—0.4	26.1	26.2	+0.4	20.0	+0.4	54	0	—	—	—	8.4

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

OCTOBER — 1973

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Salum	33.9	16	23.8	31	28	7	0	0	0	18.4	—	21.0	1	14.8	30	0	0	0	0
Mersa Matruh (A)	31.4	9	23.6	31	25	2	0	0	0	15.3	—	22.6	3	13.6	30	0	0	0	0
Alexandria (A)	31·6	11	23.8	31	30	4	0	0	0	15.8	—	23.0	3	15.6	20	0	0	0	0
Port Said (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	33.4	11	26.6	30	31	17	0	0		—	—	18.2	4	13.0	19,28	0	0	0	0
Cairo (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	0	0	0
Fayoum	37.5	17	27.7	30	31	27	4	0	0	14.4	—	20.2	1.3	11.7	80	0	0	0	0
Minya (A)	37.5	18	28.0	31	31	27	4	0	0	14.4	—	20.6	4	11.0	30,31	0	0	0	0
Assyout (A)	40.0	18	27.5	30	31	27	8	0	0	13.6	—	19.7	3	12.5	31	0	0	0	0
Luxor (A)	40.6	20	31.4	31	31	31	26	2	0	11.8	—	22.0	1	11.8	31	0	0	0	0
Aswan (A)	42.0	18	32.0	8	31	31	25	4	0	—	—	25.0	5	16.2	30	0	0	0	0
Siwa	33.3	18	24.1	30	30	22	0	0	0	14.0	—	20.9	1	10.4	31	0	0	0	0
Bahariya	36.9	18	26.6	31	31	23	4	0	0	16.1	—	19.6	1	10.4	30	0	0	0	0
Farafra	37.0	11	27.0	31	31	27	3	0	0	15.4	—	19.8	3	10.5	30	0	0	0	0
Dakhla	41.3	19	28.0	31	31	26	7	2	0	14.8	—	20.4	27	8.9	31	3	0	0	0
Kharga	41.3	18	29.2	30	31	30	13	2	0	16.5	—	26.0	19	12.0	31	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	34.6	12	28.3	28	31	21	0	0	0	—	—	24.6	6	17.0	30	0	0	0	0
Quseir	32.5	12	27.5	28	31	8	0	0	0	18.6	—	25.2	6	20.2	25	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

OCTOBER — 1973

STATION	Mean Sky Cover (Oct).					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	2.8	1.6	2.5	1.4	2.0	2.3	—15.5	2.3	10	0	1	1	0	0	0	0
Mersa Matruh (A)	1.4	2.6	2.9	1.6	2.2	1.6	—17.1	1.4	31	1	3	1	0	0	0	0
Alexandria (A)	2.4	3.2	3.9	2.5	3.0	5.8	— 4.5	5.3	31	0	3	1	0	0	0	0
Port Said (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.3	1.5	2.4	0.1	1.1	0.0	— 4.1	0.0	—	0	0	0	0	0	0	0
Cairo (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fayoum	—	0.4	0.9	0.4	—	0.0	— 0.8	0.0	—	0	0	0	0	0	0	0
Minya	0.0	0.7	0.4	0.0	0.2	0.0	— 0.5	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.0	0.0	0.0	0.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.2	0.3	0.5	0.4	0.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.6	0.9	0.7	0.9	0.8	3.0	+ 3.0	3.0	5	0	1	1	0	0	0	0
Siwa	0.3	1.2	1.8	0.4	0.8	0.0	— 0.5	0.0	—	0	0	0	0	0	0	0
Bahariya	0.1	0.5	0.6	0.2	0.3	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.0	0.2	0.0	—	0.0	— 0.7	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.0	0.1	0.0	0.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.0	0.1	0.0	0.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.1	0.4	0.4	0.5	0.3	Tr.	— 0.2	Tr.	4	1	0	0	0	0	0	0
Quseir	0.6	1.1	1.0	0.9	0.9	0.9	+ 0.1	0.5	5	1	2	0	0	0	0	0

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

OCTOBER — 1973

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sanderising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice, Pellets	Hail											
Sallum	1	0	0	0	0	0	0	0	0	0	0	0	0	16	0
Mersa Matruh (A)	3	0	0	0	0	0	0	0	0	1	5	2	0	12	0
Alexandria (A)	3	0	0	0	0	1	3	4	0	0	1	0	0	10	0
Port Said (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	16	0	0	0	0	0	0	25	0
Cairo (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fayoum	0	0	0	0	0	0	0	0	0	0	1	0	0	—	—
Minya (A)	0	0	0	0	0	0	7	0	4	0	2	0	0	31	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Luxor (A)	0	0	0	0	0	0	0	0	8	0	0	0	0	28	0
Aswan A)	1	0	0	0	0	2	0	0	0	0	3	0	0	25	0
Siwa	0	0	0	0	0	0	0	0	0	0	2	0	0	26	0
Bahariya	0	0	0	0	0	0	0	0	0	1	1	0	0	31	0
Farafra	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	2	0	0	31	0
Kharga	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	1	0	0	0	0	0	0	0	29	0
Quseir	2	0	0	0	0	3	0	0	0	0	0	0	0	25	0

TABLE A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

OCTOBER — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurences of wind blowing from the ranges of directions indicated												
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions
Sallum	7	3	0	1—10	27	66	95	61	42	34	10	14	27	68	96	144	684
				11—27	1	0	2	11	4	0	0	4	0	8	15	5	50
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	28	66	97	72	46	34	10	18	27	76	111	149	734
Mersa Matruh . (A)	62	0	0	1—10	49	29	27	30	24	33	33	23	52	48	17	68	433
				11—27	34	15	26	7	3	6	5	8	19	8	27	90	248
				28—47	0	0	0	0	0	0	1	0	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	83	44	53	37	27	39	39	31	71	56	44	158	682
Alexandria . . (A)	6	0	1	1—10	181	146	28	23	25	27	29	26	7	22	27	104	645
				11—27	13	14	0	6	1	0	3	10	8	2	12	23	92
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	194	160	28	29	26	27	62	36	15	24	39	127	737
Tanta.	17	0	3	1—10	144	131	41	15	11	11	18	42	48	39	80	72	652
				11—27	20	11	12	1	0	0	0	0	5	4	9	10	72
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	164	142	53	16	11	11	18	42	53	43	89	82	724
Cairo . . . . (A)	9	0	562	1—10	23	6	2	0	0	6	8	5	2	3	28	54	137
				11—27	11	8	0	0	0	0	4	4	3	1	0	5	36
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	34	14	2	0	0	6	12	9	5	4	28	59	173
Fayoum	10	3	0	1—10	185	321	52	4	4	6	18	20	30	28	20	8	696
				11—27	0	16	19	0	0	0	0	0	0	0	0	0	35
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	185	337	71	4	4	6	18	20	30	28	20	8	731
Minya . . . . (A)	4	0	0	1—10	332	39	2	1	2	26	26	11	17	22	31	44	553
				11—27	145	26	0	0	0	0	0	0	0	0	12	4	187
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	477	65	2	1	2	26	26	11	17	22	43	48	740
Asyout . . . . (A)	10	0	2	1—10	53	2	5	0	8	7	15	9	12	87	271	157	626
				11—27	48	3	0	0	0	0	0	0	0	2	12	41	106
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	101	5	5	0	8	7	15	9	12	89	283	198	732
Luxor . . . . (A)	166	0	1	1-10	72	28	15	16	21	15	82	21	17	53	107	129	576
				11-27	0	0	0	0	0	0	0	0	0	0	0	1	1
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	72	28	15	16	21	15	82	21	17	53	107	130	577

Table A 5. (*contd.*)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

OCTOBER — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indication												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Aswan . . . . (A)	15	0	1	1—10	184	110	12	3	1	1	0	0	0	0	4	180	495
				11—27	60	32	2	0	0	0	0	0	0	0	3	136	233
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	244	142	14	3	1	1	0	0	0	0	7	316	728
Siwa	97	0	2	1—10	20	55	85	72	72	19	7	8	17	51	76	75	557
				11—27	1	7	5	15	12	5	3	1	3	12	20	4	88
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	21	62	90	87	84	24	10	9	20	63	96	79	645
Dakhla	3	26	1	1—10	83	47	28	28	7	13	29	38	36	60	136	174	679
				11—27	13	12	0	0	0	1	0	0	0	0	0	9	35
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	96	59	28	28	7	14	29	38	36	60	136	183	714
Kharga	8	12	1	1—10	171	106	29	8	5	2	3	3	9	9	28	149	522
				11—27	154	16	0	0	0	0	0	0	0	0	0	31	201
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	325	122	29	8	5	2	3	3	9	9	28	180	723
Hurghada.	94	0	3	1—10	115	55	5	0	0	7	3	0	1	2	71	198	457
				11—27	85	2	0	0	0	0	0	0	0	0	2	96	185
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	200	57	5	0	0	7	3	0	1	2	73	294	642
Quseir	4	4	0	1—10	85	47	17	11	4	3	3	6	14	30	125	150	495
				11—27	122	56	0	0	0	0	0	0	0	1	3	59	241
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	207	103	17	11	4	3	3	6	14	31	128	209	736

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

OCTOBER — 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 0000 U.T.	Surface	29	1014* m.b.	1018* m.b.	1009* m.b.	29	19.9	23.0	17.0	29	15.9
	1000	29	147	181	106	29	19.7	22 8	16.6	29	—16.4
	850	29	1533	1586	1470	29	13.6	21.0	06.0	29	—03.5
	700	29	3144	3222	3041	29	4.5	09.4	— 3.6	29	— 9.3
	600	29	4489	4490	4249	29	2.0	4 0	— 8.8	29	—18.6
	500	29	5810	5934	5632	29	—11.5	— 4.9	—19.8	29	—26.6
	400	29	7481	7626	7248	29	—24.5	—19.7	—31.7	29	—38.4
	300	29	9511	9691	9220	29	—39.9	—35.7	—44.9	29	—51.5
	250	28	10749	10940	10422	28	—47.5	—41.5	—51.9	28	—57.8
	200	28	12199	12414	11866	28	—54.1	—48.2	— 60.1	25	—63.2
	150	28	14014	14283	13686	28	—60.5	—56.5	—65.3	10	—66.1
	100	28	16509	16704	16194	28	—67.5	—61.7	—73.9	—	—
	70	26	18654	18827	18474	26	—65.5	—56.9	—70.7	—	—
	60	24	19651	19820	19470	24	—62.7	—55.5	—69 8	—	—
	50	24	20737	20936	20553	24	—59.9	—52.3	—67.7	—	—
	40	11	22216	22380	22020	11	—57.1	—52.5	—60.5	—	—
	30	10	23975	24103	29814	10	—54.6	—50.5	—60.7	—	—
	20	4	26634	26766	26500	4	—49.1	—47.9	—50.8	—	
	10	—	—	—	—	—	—	—	—	—	
Helwan 0000 UT	Surface	31	997* m.b.	101* m,b.	993* m.b.	31	20.1	22.6	16.6	31	15.4
	1000	31	118	157	080	6	19.7	22.6	17.6	6	14.4
	850	31	1515	1564	1473	31	15.7	22.0	9.2	31	11.0
	700	31	3136	3207	3045	31	7.0	12.6	— 1.2	31	—13.3
	600	31	4387	4470	4269	31	0.6	3.6	— 7.2	31	—21.1
	500	31	5817	5916	5678	31	—10.9	— 6.9	—15.5	31	—29.8
	400	31	7494	7614	7328	31	—23.7	—19.7	—27.9	31	—39.2
	300	31	9538	9674	9345	31	—37.8	—33.0	—41.8	31	—51.6
	250	31	10772	10915	10574	31	—45.8	—42.2	—51.3	31	—58.1
	200	30	12234	12381	12025	30	—53.4	—47.8	—59.3	30	—64.6
	150	29	14050	14189	13825	29	—61.3	—57.8	—67.1	9	—70.1
	100	29	16510	16680	16285	29	—79.3	—65.5	—75.0	—	—
	70	24	18642	18751	18444	24	—66.3	—59.3	—71.4	—	—
	60	22	19615	19810	19450	22	—64 5	—62.1	—70.0	—	—
	50	21	20699	20843	20524	21	—60.7	—55.7	—66.3	—	—
	40	17	22181	22360	22030	17	—57.5	—48.1	—60.7	—	—
	30	17	23923	24118	23746	17	—54.6	—51.7	—56.6	—	—
	20	13	26557	26754	26455	13	—56 4	—47.5	—51.8	—	—
	10	1	31084	—	—	1	—44.2	—	—	—	—
Aswan (A) 0000 UT	Surface	28	989* m.b.	992* m.b.	987* m.b.	28	23.9	27.0	19.0	28	5.3
	1000	28	098	124	060	—	—	—	—	—	—
	850	28	1520	1552	1484	28	21.4	25.5	15.7	28	0.7
	700	28	3160	3200	3124	28	7.6	11.4	4.3	28	— 8.1
	600	27	4414	4480	4371	27	— 0.4	2.4	4.6	27	—17.6
	500	26	5848	5932	5800	26	— 9.5	— 6.4	—15.6	26	—26.1
	400	24	7540	7588	7467	24	—20.1	—17.4	—24.7	24	—36.3
	300	24	9613	9723	9516	24	—34.6	—31.6	—36.9	23	—49.7
	250	24	10864	10933	10753	24	—43.5	—40.1	—46.5	24	—57.2
	200	24	12334	12436	12215	24	—53.5	—50.3	—55.8	24	—65.5
	150	24	14134	14246	14007	24	—65.3	—61.5	—67.4	—	—
	100	23	16542	16679	16484	23	—74.9	—71.0	—79.0	—	—
	70	20	18633	18792	18546	20	—70.7	—66.0	—80.0	—	—
	60	18	19597	19760	19490	18	—67.0	—62.8	—76.4	—	—
	50	18	20668	20857	20509	18	—63.4	—60.4	—72 1	—	—
	40	14	22153	22340	22050	14	—59.6	—57.4	—63.5	—	—
	30	13	23878	24077	23779	13	—55.7	—52.3	—60.6	—	—
	20	10	26505	26710	26420	10	—49.8	—46.4	—53.0	—	—
	10	—	—	—	—	—	—	—	—	—	—

N — The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

TABLE B 1 (*contd.*).—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

OCTOBER — 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1900 U.T.	Surface	31	1014m.b.	1018m.b.	1008m.b.	31	26.1	30.5	22.0	31	16.6
	1000	31	147	186	98	30	24.2	29.8	20.6	30	14.9
	850	31	1546	1615	1482	31	15.5	20.9	7.5	30	3.2
	760	31	3164	3262	3069	31	6.0	11.3	— 2.0	30	— 7.9
	600	31	4412	4521	4299	31	— 1.3	4.6	— 8.2	30	—17.4
	500	31	5840	5904	5692	31	—11.1	— 6.1	—18.6	30	—27.1
	400	31	7512	7687	7318	31	—23.8	—19.0	—30.5	30	—37.7
	300	31	9546	9760	9306	31	—33.6	—32.0	—45.0	29	—51.1
	250	30	10786	11005	10516	30	—46.8	—42.5	—51.5	29	—58.4
	200	30	12239	12463	11970	30	—52.8	—47.2	—60.1	29	—59.4
	150	29	14073	14261	13802	29	—59.4	—54.7	—64.2	17	—69.6
	100	29	16574	16748	16344	29	—65.9	—59.4	—73.5	—	—
	70	28	18749	18951	18562	28	—62.9	—56.1	—70.3	—	—
	60	24	19729	19890	19409	24	—60.5	—55.0	—66.4	—	—
	50	24	20819	21063	20626	24	—57.8	—52.9	—66.8	—	—
	40	19	22361	22595	21990	19	—54.4	—50.0	—57.9	—	—
	30	18	24142	24366	23977	18	—50.8	—46.5	—56.4	—	—
	20	12	26853	27073	26597	12	—45.8	—42.6	—52.0	—	—
	10	2	31515	31560	31470	2	—43.0	—42.1	—43.8	—	—
Helwa 1500 U.T	Surface	31	*997m.b.	*1000m.b.	*992m.b.	31	29.5	33.1	25.3	31	10.3
	1000	31	109	140	068	2	30.4	33.0	27.8	2	4.0
	850	31	1524	1570	1487	31	16.9	23.0	11.0	31	— 0.3
	700	30	3149	3219	3091	30	80	12.5	2.8	30	—15.1
	600	30	4403	4467	4325	30	0.3	5.5	— 5.1	30	—23.0
	500	30	5839	5930	5733	30	—10.2	— 5.4	—17.9	30	—31.7
	400	29	7519	7617	7390	29	—22.4	—18.3	—26.9	29	—41.1
	300	28	9576	9707	9423	28	—37.2	—32.3	—40.7	28	—53.3
	250	27	10811	10965	10704	27	—44.3	—41.1	—50.0	27	—59.4
	200	27	12286	12486	12126	27	—51.9	—48.4	—54.9	27	—64.9
	150	27	14123	14252	13939	27	—60.1	—55.7	—65.4	14	—70.4
	100	25	16605	16701	16421	25	—68.6	—63.0	—73.3	—	—
	70	23	18758	18876	18602	23	—64.9	—60.0	—70.7	—	—
	60	19	19751	19870	19600	19	—62.5	—60.0	—66.7	—	—
	50	19	20835	20935	20604	19	—58.5	—55.5	—63.0	—	—
	40	18	22347	22500	22200	18	—54.4	—51.6	—56.7	—	—
	30	16	24107	24241	23950	16	—51.2	—46.4	—54.6	—	—
	20	15	26787	26941	26615	15	—45.7	—41.3	—48.4	—	—
	10	3	31423	31500	31318	3	—41.0	—37.0	—43.1	—	—
Aswan 1200 U.T.	Surface	31	*988m.b.	*991m.b.	*985m.b.	31	35.6	39.0	31.0	31	6.3
	1000	31	085	113	055	—	—	—	—	—	—
	850	31	1527	1552	1490	31	22.9	27.8	16.8	31	2.2
	700	30	3180	3223	3138	30	9.1	13.3	05.4	30	—11.4
	600	27	4434	4467	21385	27	0.7	4.3	— 3.0	27	—21.5
	500	25	5876	5955	5829	25	— 7.8	— 3.5	—12.6	25	—29.9
	400	24	7574	7684	7520	24	—19.1	—13.2	—23.0	24	—39.6
	300	24	9657	9744	9583	24	— 334	—29.8	—36.3	24	—51.5
	250	24	10914	11081	10834	24	—42.4	—39.6	—45.3	24	—58.9
	200	24	12393	12571	12308	24	—52.1	—48.1	—54.7	24	—66.6
	150	24	14209	14383	14130	24	—63.7	—61.5	—65.9	—	—
	100	23	16637	16803	16532	23	—73.6	—68.8	—79.7	—	—
	70	15	18764	18893	18631	15	—68.5	—65.7	—71.2	—	—
	60	12	19749	19800	19640	12	—64.2	—62.1	—65.8	—	—
	50	12	20841	20943	20701	12	—60.0	—58.6	—61.8	—	—
	40	11	22337	22450	22200	11	—56.3	—54.1	—58.5	—	—
	30	11	24092	24218	23935	11	—50.7	—48.1	—53.6	—	—
	20	7	26792	26918	26648	7	—43.3	—40.6	—48.5	—	—
	10	1	31650	—	—	1	—37.3	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE : THE HIGHEST WIND SPEED IN THE UPPER AIR

OCTOBER — 1973

	STATION	Freezing Level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mp.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitaed (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in knots
		(N)	(N)	(N)							(N)	(N)	(N)										
0000 U.T.	Mersa Matruh.	3977 (29)	634 (29)	—15.1 (29)	5070	555	—19.2	2690	733	—10.5	14839 (26)	137 (26)	—64.8 (26)	18500	071	—68.1	10900	246	—49.3	10255	266	230	112
	Helwan . . .	4269 (31)	610 (31)	—19.7 (31)	4960	560	—12.8	3310	677	—13.5	14846 (26)	139 (26)	—66.8 (26)	16960	093	—68.3	11010	240	—49.8	12250	196	270	124
	Aswan	4275 (27)	611 (27)	—15.4 (27)	4900	566	—20.2	3630	660	—16.3	16500 (20)	102 (20)	—75.8 (20)	17810	076	—82.2	15090	131	—70.6	9550	300	210	076
		(N)	(N)	(N)							(N)	(N)	(N)										
1200 U.T.	Mersa Matruh.	4129 (31)	624 (31)	—14.8 (30)	5170	554	— 8.4	2550	751	— 3.8	14478 (27)	146 (27)	—61.4 (27)	16665	100	—73.5	10580	261	—45.9	12650	192	225	115
	Helwan . . .	4440 (30)	599 (30)	—22.6 (30)	5170	548	—21.5	3550	665	—17.7	15455 (23)	108 (23)	—69.2 (23)	18180	048	—73.3	15000	132	— 63.8	12840	187	265	122
	Aswan	4504 (26)	595 (26)	—21.1 (26)	5200	548	—25.0	3720	654	—15.4	16324 (15)	103 (15)	—73.2 (15)	16803	100	—74.0	15900	112	—71.7	12035	213	250	090

N = The number of cases the element has been observed during the month.

Table B 3. *(contd.)*—**NUMBER OFOCCURRNES OF WIND IRECTION WITHEN SPECIFIEDRANETH AND SEGMEAN SCALA RWIND SPD AT TH STEANDARD AND SELECTED PRESSURE SURFACES**

MERSA MATRUH (A) — OCTOBER 1973

Time	Pressure surface (Millibar	Wind between specified ranges of direction (000 - 360°)																						Number of Calm winds	Total Number of Observations (T N)	Mean Scalar win Speed (Knots) d
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	2	8	4	3	2	2	2		1	16	2	6	1	2	3	7	7	8	3	6	1	15	1	6	0	29	6
	1000	1	4	5	8	2	8	1	8	4	15	0	—	0	—	2	10	0	—	5	11	5	12	3	13	1	29	11
	850	2	4	3	9	5	14	0	—	0	—	2	8	1	36	1	22	2	19	3	16	5	17	4	10	1	29	13
	700	2	8	3	11	4	17	0	—	0	—	0	—	0	—	2	26	5	23	7	21	3	16	1	17	0	27	19
	600	1	3	2	26	0	—	1	18	0	—	1	5	0	—	3	19	7	26	6	24	3	35	3	11	0	27	22
	500	0	—	1	22	0	—	0	—	2	12	1	4	1	9	3	37	11	31	1	17	5	23	1	10	0	26	25
	400	0	—	1	23	0	—	0	—	0	—	1	21	2	20	4	39	6	40	2	36	7	24	1	34	0	24	31
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	44	11	46	2	38	2	35	3	37	0	24	42
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	54	11	49	2	26	3	43	1	29	0	23	47
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	52	7	51	3	42	1	40	0	—	0	16	49
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	66	7	55	2	28	1	33	0	—	0	12	49
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	34	5	28	2	24	0	—	0	—	0	11	29
	70	1	10	0	—	0	—	0	—	0	—	0	—	0	—	2	14	1	22	0	—	0	—	1	14	1	6	12
	60	1	12	0	—	0	—	0	—	0	—	1	12	0	—	1	12	0	—	0	—	1	10	0	—	0	4	12
	50	0	—	0	—	1	12	0	—	0	—	0	—	0	—	1	07	1	10	0	—	0	—	0	—	0	3	10
	40	0	—	1	10	1	12	0	—	0	—	0	—	0	—	1	11	0	—	0	—	0	—	0	—	0	3	13
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	7	9	8	10	2	11	0	—	0	—	0	—	1	20	0	—	0	—	0	—	3	19	10	12	0	31	12
	1000	5	14	5	12	2	13	0	—	0	—	0	—	1	23	0	—	1	19	3	18	5	21	8	11	0	30	15
	850	1	5	4	14	4	12	0	—	0	—	1	5	2	18	1	22	7	11	5	18	2	13	3	10	0	30	13
	700	0	—	3	18	2	18	0	—	0	—	1	3	1	26	5	17	6	19	6	16	5	13	1	4	0	30	15
	600	2	8	1	26	3	14	1	6	1	7	0	—	1	22	6	24	7	23	6	14	3	24	0	—	0	31	19
	500	2	10	1	20	0	—	3	13	0	—	2	9	0	—	5	32	12	28	3	18	3	16	0	—	0	31	25
	400	0	—	1	37	1	15	0	—	0	—	1	34	1	6	7	44	11	39	5	19	2	26	2	28	0	31	33
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	57	14	43	5	26	1	5	3	34	0	30	31
	250	0	—	1	3	0	—	0	—	0	—	0	—	0	—	7	53	17	52	3	37	2	20	2	52	0	29	46
	200	0	—	0	—	0	—	0	—	0	—	1	78	0	—	6	70	12	50	4	30	2	44	0	—	0	25	52
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	57	4	58	2	30	1	51	0	—	0	15	53
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	30	0	—	1	17	1	16	1	36	0	8	27
	70	0	—	0	—	0	—	1	18	1	24	0	—	0	—	1	12	0	—	0	—	1	14	0	—	0	4	17
	60	0	—	1	10	0	—	0	—	1	28	1	23	0	—	0	—	0	—	1	11	0	—	0	—	0	4	18
	50	0	—	0	—	1	13	0	—	2	12	0	—	0	—	0	—	1	12	0	—	0	—	0	—	0	4	12
	40	0	—	0	—	0	—	1	19	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	16
	30	0	—	0	—	1	9	2	—	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	2	10
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.
TN = The total number of cases the wind has been observed for all directions during the month

Table B 3. *(contd.)*—**NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**

HELWAN — OCTOBER 1973

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360)°																						Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	4	7	17	10	4	10	0	—	1	6	1	6	0	—	1	4	0	—	0	—	1	4	2	6	0	31	9
	1000	0	—	6	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	6	12
	850	5	13	5	20	0	—	3	6	1	4	0	—	1	21	3	16	2	15	3	18	2	10	6	11	0	31	14
	700	0	—	3	10	1	9	0	—	0	—	0	—	3	15	4	17	4	12	9	15	4	16	3	17	0	31	14
	600	0	—	1	3	0	—	0	—	2	12	0	—	2	7	1	21	9	19	9	24	6	14	1	9	0	31	17
	500	0	—	0	—	0	—	0	—	2	9	0	—	1	12	3	19	8	30	11	26	4	14	2	8	0	31	22
	400	1	22	0	—	1	23	1	5	0	—	1	14	0	—	2	14	8	36	12	35	3	26	1	3	0	30	29
	300	0	—	2	16	0	—	0	—	0	—	0	—	0	—	1	66	6	55	16	35	3	31	1	22	0	29	38
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	36	4	57	15	49	6	42	1	17	0	28	47
	200	1	17	0	—	1	2	0	—	0	—	0	—	0	—	0	—	7	62	12	74	5	34	0	—	0	26	58
	150	0	—	0	—	0	—	0	—	1	2	0	—	0	—	1	65	4	48	12	62	1	42	3	29	0	22	52
	100	0	—	1	30	0	—	0	—	0	—	0	—	0	—	0	—	4	42	6	36	2	22	1	25	0	14	35
	70	0	—	2	34	1	8	0	—	0	—	1	4	0	—	1	33	2	20	3	44	2	12	1	8	0	13	24
	60	2	7	1	10	2	14	0	—	0	—	0	—	2	6	2	9	0	—	2	18	0	—	0	—	0	11	11
	50	0	—	0	—	3	10	2	22	2	7	3	7	0	—	0	—	0	—	1	10	0	—	0	—	0	11	11
	40	2	4	0	—	1	6	4	16	1	10	0	—	0	—	0	—	1	18	1	5	0	—	0	—	0	10	12
	30	0	—	0	—	0	—	6	11	2	10	0	—	0	—	0	—	1	11	0	—	0	—	0	—	10	9	11
	20	1	10	2	18	1	4	0	—	1	7	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	11
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	11	8	8	12	0	—	0	—	0	—	0	—	0	—	3	7	4	6	1	4	0	—	4	7	0	31	9
	1000	1	10	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	14
	850	4	13	6	13	4	12	0	—	0	—	0	—	1	6	2	8	5	13	4	9	1	6	4	10	0	31	11
	700	1	9	1	10	1	7	0	—	2	23	1	7	1	17	4	14	5	23	11	16	2	20	1	62	0	30	17
	600	0	—	1	6	0	—	0	—	4	8	2	10	1	21	1	9	9	23	9	17	2	12	1	11	0	30	17
	500	0	—	0	—	1	11	1	3	0	—	4	15	1	8	2	8	10	30	5	27	5	17	1	13	0	30	21
	400	1	20	0	—	0	—	1	7	0	—	2	22	2	28	3	35	7	41	7	37	3	20	2	15	0	28	31
	300	0	—	0	—	0	—	0	—	0	—	1	55	0	—	1	5	9	51	7	47	7	23	2	14	0	27	38
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	68	10	53	5	21	3	29	0	25	48
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	100	5	67	11	55	4	34	2	18	0	23	52
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	61	12	51	2	42	3	35	0	19	49
	100	2	11	0	—	1	13	0	—	0	—	0	—	0	—	0	—	4	38	5	28	3	30	0	—	0	15	28
	70	1	10	1	14	1	25	3	10	0	—	1	10	0	—	1	7	1	21	1	23	1	6	0	—	0	11	13
	60	1	12	0	—	2	9	3	12	0	—	1	6	1	12	0	—	2	21	0	—	1	20	0	—	0	11	13
	50	2	8	0	—	0	—	3	10	2	10	2	9	1	13	0	—	0	—	0	—	0	—	0	—	0	10	10
	40	0	—	0	—	1	5	2	6	5	13	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	9	10
	30	0	—	1	10	1	7	1	9	2	12	2	14	1	18	0	—	0	—	0	—	0	—	0	—	0	8	12
	20	0	—	0	—	1	10	2	24	1	3	1	10	1	10	0	—	0	—	0	—	0	—	0	—	0	6	14
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3.*(contd.)*—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

ASWAN (A) — OCTOBER 1973

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000—360)°																								Number of Calm winds	Total Number of observation (TN)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	17	11	4	13	2	8	1	14	0	—	0	—	0	—	0	—	0	—	0	—	2	8	2	14	0	28	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-	—	—	—	—	—	—	—	—	—	—
	850	5	16	5	16	3	14	5	17	2	10	1	12	0	—	0	—	1	10	0	—	1	9	3	10	0	26	14
	700	1	5	3	16	2	12	5	13	2	12	2	20	2	12	3	12	2	15	2	14	1	10	1	10	0	26	13
	600	0	—	1	7	1	5	0	—	4	17	0	—	3	18	5	11	7	18	1	6	1	25	0	—	0	23	15
	500	2	8	0	—	0	—	0	—	0	—	1	11	4	16	3	20	6	20	1	17	1	4	2	11	0	20	16
	400	0	—	0	—	0	—	2	14	0	—	2	10	1	26	3	29	5	18	3	23	0	—	2	20	0	18	20
	300	0	—	0	—	0	—	1	32	0	—	0	—	0	—	3	48	7	33	2	22	3	18	1	7	0	17	30
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	42	6	41	5	24	1	12	1	28	0	17	34
	200	0	—	0	—	0	—	1	31	0	—	0	—	0	—	3	23	6	45	3	33	1	33	1	7	0	15	34
	150	1	21	2	22	0	—	0	—	0	—	0	—	0	—	5	24	6	31	1	37	0	—	0	—	0	15	27
	100	1	11	1	13	0	—	0	—	1	36	1	30	3	12	2	16	2	14	1	11	1	12	0	—	0	13	16
	70	0	—	1	10	3	10	0	—	0	—	0	—	1	16	0	—	0	—	0	—	0	—	0	—	0	5	12
	60	0	—	1	11	1	20	2	14	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	5	14
	50	0	—	0	—	0	—	1	15	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	14
	40	0	—	0	—	1	9	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	9
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	10	10	10	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	10	0	31	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	6	10	4	10	5	9	6	12	0	—	0	—	0	—	1	8	1	4	4	6	2	11	2	10	0	31	10
	700	3	9	0	—	0	—	3	10	3	7	4	10	5	12	6	10	3	12	2	8	1	8	0	—	0	30	12
	600	1	6	0	-	1	7	1	7	4	16	3	17	4	12	7	14	4	16	1	16	1	10	0	—	0	27	13
	500	0	—	3	7	3	10	0	—	1	17	1	15	2	11	5	25	5	27	1	17	2	6	1	15	0	24	17
	400	0	—	5	—	0	—	1	5	0	—	2	6	1	13	4	22	6	31	5	29	4	19	1	9	0	24	22
	300	0	—	0	-	0	—	0	—	0	—	0	—	0	—	3	36	11	35	8	45	1	15	1	22	0	24	37
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	28	10	50	8	41	2	27	0	—	0	23	42
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	23	11	38	7	58	2	36	1	21	0	23	41
	150	1	31	0	—	0	—	0	—	1	27	0	—	0	—	3	19	12	46	4	30	0	—	1	22	0	22	38
	100	0	—	3	13	0	—	0	—	0	—	1	17	2	18	3	15	5	33	3	20	1	11	0	9	0	19	22
	70	0	—	2	22	0	—	2	16	0	—	1	10	0	—	0	—	0	—	1	13	0	—	0	—	0	6	16
	60	0	—	0	—	1	22	1	13	3	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	15
	50	0	—	0	—	0	—	0	-	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	20
	40	0	—	0	—	0	—	1	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	0	1	19
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — OCTOBER 1973

For the month as a whole the mean daily air temperature was rather normal and the mean daily relative humidity was above normal. The total monthly rainfall was only 1.6 mm. against 18.7 mm. for normal.

Weather during the month was generally mild intervened with three light heat waves on the 9th, in the period (15th-17th) and the 25th. The first heat wave yielded the highest maximum air temperature for the month (31.4°C) together with the lowest relative humidity (27%).

The highest maximum soil temperatures were higher than last October at 2, 5, 20 cm. depths with slight departures between 0.1° and 0.8°C ; the same as last October at 10 cm. ; lower at 50 and 100 cm. depths by 1.1°C and 0.3°C respectively. The lowest minimum soil temperatures were higher than last October at all depths with departures between 1.8°C (at 2 cm.) and 0.5°C (at both 10, 100 cm.).

The mean daily actual sunshine duration was higher than normal by 0.9 hour. The mean daily wind speed at 1.5 met was lower by 0.5 m./sec. than the corresponding value of October 1972.

TAHRIR — OCTOBER 1973

For the month as a whole the mean daily air temperature was below normal and the mean daily relative humidity was slightly above normal.

The daily maximum air temperatures were above normal the whole month apart from the period (6th-8th), the 13th, 28th and (30th & 31st). The daily minimum air temperatures were — on the other hand — below normal most days of the moth.

The highest maximum soil temperature were lower than the corresponding values of last October at all depths with departures between 2.7°C (at 2 cm.) and 0.1° (at 20 cm.). The lowest minimum soil temperatures were higher than the corresponding values of last October at all depths except at 20 cm. where its value was the same as last October ; the departures varied between 2.3°C (at 2 cm.) and 0.7°C (at 100 cm.).

The mean daily actual sunshine duration was higher than normal by 0.6 hour. The mean daily wind speed at 1.5 met. and pan evaporation were slightly lower than normal.

BAHTIM — OCTOBER 1973

For the month as a whole the mean daily air temperature was above normal and the mean daily relative humidity was normal.

The daily maximum air temperatures were above normal the whole month apart from two short mild periods (1st, 2nd) and (6th-8th). The daily minimum air temperatures were also above normal most days of the month.

The highest maximum soil temperature was lower than last October at 2 cm. depth by 1.1°C. and showed irregular slight departures from last October at depths between 5 and 100 cm. The lowest minimum soil temperatures were higher than last October at all depths apart from 100 cm. where it was the same as last October ; the departures varied between 2.4°C (at 5 cm.) and 0.8°C (at 50 cm.).

The mean maily actual sunshine duration, wind speed at 1.5 met. and pan evaporation showed insignificant departures from the corresponding normal values.

KHARGA — OCTOBER 1973

This month was rather normal as regards the mean daily air temperature and relative humidity.

The month was intervened by a light heat wave in the period (10th-12th) and a prolonged heat wave which prevailed from the 15th till the 29thand yielded the highest maximum air temperature for the month (41.3°C) on the 18th and the highest minimum air temperature (26.0°C) on the 19th. In the rest of the month mild weather was experienced.

The highest maximum soil temperatures were higher than the corresponding values of last Octo ber at depths between 2 and 10 cm. with departures between 1.6°C and 0.8°C ; and lower that last October by 0.4°C at deeper depths between 20 and 100 cm. The lowest minimum soil temperatures were higher than last October at all depths except at 10 cm. where its value was lower by 0.3° (than last October ; the departures varied between 2.2°C (at 2 cm.)and 0.1°C (at 100 cm.).

The mean daily actual sunshine duration was the same as normal. The mean daily pan evapo-ration and wind speed at 1.5 met. were lower than normal by 0.36 mm. and 0.6 m./sec. respectively.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

OCTOBER — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following value										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	–5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Mersa Matruh. . .	26.9	17.3	22.1	20.0	24.3	24.0	24.0	24.0	24.0	24.0	23.9	16.4	4.9	0.2	0.0	0.0
Tahrir	31.7	15.5	22.5	18.8	26.2	24.0	24.0	24.0	24.0	23.4	14.8	7.9	1.5	0.0	0.0	0.0
Bahtim	31.0	15.4	22.5	18.7	26.4	24.0	24.0	24.0	24.0	23.1	14.6	8.1	2.0	0.0	0.0	0.0
Kharga	34.9	18.6	27.1	23.7	30.4	24.0	24.0	24.0	24.0	23.6	21.5	14.6	7.2	1.7	0.1	0.0

Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUD OVER DIFFERENT FIELDS.

OCTOBER — 1973

STATION	Max. Temp. at 1½ metres				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	value	Date	value	Date	value	Date	value	Date	Value	Date	Value	Date
Mersa Matruh. . .	31.4	9	23.6	31	22.6	3	13.6	30	11.0	17.18,21	—	—
Tahrir	34.3	22	27.8	30	19.7	4	12.9	29	10.6	29	9.2	29
Bahtim	34.6	11	27.7	30	20.0	4	12.2	28	9.0	28	8.3	28
Kharga	41.3	18	29.2	30	25.0	19	12.0	31	9.8	31	—	—

Table C 3.—(SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, & VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL.

OCTOBER — 1973

STATION	(Solar+Sky Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity %				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
M. Matruh	355.2	298.4	353.5	84	75	61	27	9	14.9	15.4	20.8	1.17	8.1	30	4.7	5.95	1.6	1.4	31
Tahrir . .	337.3	303.7	354.6	86	72	43	26	29	14.2	13.4	19.7	4	6.4	30	4.8	6.93	0.0	0.0	—
Bahtim . .	381.1	301.2	354.8	85	65	36	22	17	12.7	11.5	17.8	4	4.6	30	7.2	7.22	0.0	0.0	—
Kharga .	406.5	330.5	358.6	92	32	21	9	18,19	8.0	7.9	14.8	3	4.1	24	15.1	13.89	0.0	0.0	—

Table C. 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms) IN DIFFERENT FIELDS

OCTOBER 1973

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
Mersa Matruoh . .	H	34.8	33.3	30.2	28.7	27.5	26.5	25.2	—	—	—	—	—	—	—	—	—
	L	17.1	17.1	18.6	21.4	24.0	24.5	24.0	—	—	—	—	—	—	—	—	—
Tahrir	H	42.7	39.1	35.0	31.6	29.8	29.8	28.7	28.0	30.0	29.4	28.7	26.8	26.2	26.5	26.8	—
	L	18.1	17.9	19.6	21.2	25.4	26.7	27.2	27.4	17.5	17.5	18.0	19.4	22.2	24.2	25.1	—
Bahtim	H	43.4	39.2	34.5	31.1	30.3	29.7	28.3	26.8	33.0	29 2	27.1	26.1	25 3	25.0	23.8	—
	L	20.2	19.8	22.7	25.6	27.6	28.1	27.9	26.5	17.4	18.0	19.0	20.4	22 3	23.4	23.4	—
Kharga	H	50.3	44.6	38.9	34.0	33.0	32.1	31.0	30.2	—	—	—	—	—	—	—	—
	L	14.8	18.0	20.5	25.6	29.5	30.7	30.5	30.0	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

OCTOBER 1973

STATION	Wind Speed m/sec at 1.5 metres			Days with surface wind speed at 10 metres							Max. Gust at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	value	Date
Marsa Matrouh	3.2	2.1	4.4	31	24	13	5	1	0	0	40	9
Tahrir	1.8	1.1	2.5	29	16	1	0	0	0	0	30	10
Bahtim	2.0	1.2	2.8	29	10	3	0	0	0	0	29	14
Kharga	3.2	2.5	3.9	31	20	6	0	0	0	0	30	8

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MONTHLY WEATHER REPORT

VOLUME 16 NUMBER 11

NOVEMBER, 1973

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
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Note : For explanatory notes on the tables please refer to Volume 16, Number 1 (January 1973).

GENERAL SUMMARY OF WEATHER CONDITIONS

NOVEMBER 1973

Subnormal air temperatures in general with two pronounced cold waves .

Heavy rainfall locally in north.

PRESSURE DISTRIBUTION

Five depressions passed sucessivly through the East Mediterranean on the 1st, 12th, 14th, 22nd and 29th. High pressure established over the region otherwise.

SURFACE WIND

The prevailing winds were generally light to moderate Nly and changed in north of the country to W/SW in advance of the depressions and to W/NW in their rears.

Winds freshened during several days in scattered places mainly in the Red Sea and Western Desert districts.

TEMPERATURE

Four cold waves prevailed most days of the month, the first and last of which were excessive.

Maximum air temperatures persisted below normal the whole month in general with appreciable departures in the first and fourth weeks.

The highest and lowest maximum air temperatures reported during this month were 32.4°C at Aswan on the 11th & 15.0°C at Zagazig on the 23rd respectively.

Minimum air temperatures were generally about normal in north and below normal with moderate departures otherwise.

The highest and lowest minimum air temperatures reported were 20.8°C at Quseir on the 2nd and 2.4°C at Dakhla on 29th re-respectively.

PRECIPITATION

Light to moderate rain fell over north of the country during several days and extended to Cairo area on the 14th & 22nd. Rain was heavy over local places in the Mediterranean district on the 1st, 2nd and 11th.

The monthly rainfall amounts were generally below normal.

The highest monthly rainfall reported was 135.7 mm. at Sidi Barrani.

The highest daily raifall was 97.6 mm. at Sidi Barrani on the 2nd.

OTHER WEATHER PHENOMENA

Early morning mist developed in several days over Delta, and Middle Egypt.

Rising sand was reported in some days over scattered places.

Cairo , February 1976

Chairman (A. F. HASAN)

Board of Directors

Table A 1.- MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURNOITE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

NOVEMBER 1973

Station	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation (mms.)
			Maximum		Minimum		$\frac{A+B}{2}$	Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F.Normal or Average	(B) Mean	D.F.Normal or Average		Mean	D.F.Normal or Average	Mean	D.F.Normal or Average	Mean	D.F.Normal or Average	Total Actual	Total Possible	%	Mean
Sallum	1020.2	+2.6	21.9	—2.5	14.1	—0.9	18.0	17.6	—1.7	13.6	—1.6	62	+ 2	—	—	—	4.1
Mersa Matruh(A)	1020.1	+2.3	20.8	—2.6	13.5	+0.1	17.2	17.0	—1.2	14.8	0.0	81	+13	229.7	316.9	72	3.3
Alexandria. (A)	1019.6	+2.4	22.3	—2.1	13.3	—1.3	17.8	17.5	—1.7	13.9	—2.2	66	+ 4	222.7	317.9	70	4.1
Port Said. (A)	—	—	—	—	—	—	—	—	—	—	—	—	— 4	—	—	—	—
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1019.2	+2.0	23.3	—2.4	10.5	—1.7	16.9	16.0	—2.4	12.8	—2.4	70	0	245.5	318.9	76	3.2
Cairo. (A)	1018.9	+1.9	23.0	—2.2	12.2	—1.7	17.6	17.2	—2.1	13.2	—1.8	63	+ 2	—	—	—	6.7
Fayoum	—	—	24.4	—2.1	10.5	—2.6	17.5	17.1	—2.4	13.2	—2.0	64	+ 3	—	—	—	4.2
Minya. (A)	1017.9	+1.4	24.0	—2.7	9.1	—2.4	16.6	16.4	—2.0	12.1	—1.9	61	+ 1	279.3	323.6	86	7.7
Assyout. (A)	1018.2	+2.0	23.8	—2.9	9.6	—3.3	16.7	16.4	—3.0	11.4	—2.2	54	+ 5	—	—	—	8.0
Luxor. (A)	1016.4	+1.8	27.1	—2.7	9.2	—3.1	18.2	17.8	—2.1	11.8	—3.0	47	0	—	—	—	5.5
Aswan. (A)	1016.2	+2.0	27.3	—2.9	11.9	—3.6	19.6	19.0	—3.3	11.8	—1.8	38	+ 6	—	—	—	14.1
Siwa	1020.0	+2.2	23.2	—3.0	9.4	—0.8	16.3	16.2	—1.8	12.5	—0.2	65	+14	277.8	321.8	86	5.4
Bahariya	1019.5	+2.4	23.1	—3.1	10.1	—1.3	16.6	16.4	—2.0	11.6	—1.8	55	+ 4	—	—	—	6.2
Farafra	1020.2	+1.7	23.5	—2.5	10.0	—0.7	16.8	16.4	—1.9	11.4	—0.8	54	+10	—	—	—	7.3
Dakhla	1018.8	+2.8	24.3	—3.3	9.2	—2.1	16.8	16.6	—2.4	10.2	—2.0	42	+ 3	—	—	—	9.5
Kharga	1017.9	+2.7	25.0	—3.7	10.5	—2.5	17.8	17.9	—2.9	11.5	—1.9	48	+ 6	304.0	328.2	93	9.3
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1016.4	+1.7	25.5	—0.5	14.6	—1.0	20.0	20.0	—1.0	13.5	—2.3	44	—11	300.6	325.3	92	9.3
Quseir	1016.0	+1.3	24.9	—2.3	17.4	—2.1	21.2	21.2	—1.8	14.8	—2.6	47	— 7	—	—	—	9.6

Note . Starting from July 1973 the monthly mean values of thc relative humidty are the arithmetic means over the month of their corresponding daily hourly values

Table A 2.—MAXIMUM & MINIMUM AIR TEMPERATURE

NOVEMBER — 1973

Station	Maximum Temperature									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	Ns. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	V–5
Sallum	25.5	15	16.9	23	1	0	0	0	0	13.1	—	17.0	18	9.3	24	2	0	0	0
Mersa Matruh . (A)	25.3	16	16.4	22	1	0	0	0	0	11.8	—	17.0	8	9.8	30	1	0	0	0
Alexandria . . . (A)	25.4	16	18.0	2,23	1	0	0	0	0	10.3	—	17.5	1	7.4	26	2	0	0	0
Port Said . . . (A)	—	—	—	—	—	0	0	—	—	—	—	—	—	—	—	—	—	0	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	26.4	15,16	17.4	23	7	0	0	0	0	—	—	14.9	2	7.0	26	11	0	0	0
Cairo . . . . . (A)	26.5	1	16.8	23	3	0	0	0	0	—	—	17.4	1	7.2	26	3	0	0	0
Fayoum	27.2	1	18.5	23	13	0	0	0	0	7.8	—	13.8	20	6.0	25	11	0	0	0
Minya . . . . . (A)	27.8	1	18.8	23	10	0	0	0	0	7.6	—	12.8	15	3.2	29	17	1	0	0
Assyout . . . . (A)	27.4	1	18.7	23	11	0	0	0	0	6.4	—	14.8	1	5.6	26.27.29	14	0	0	0
Luxor . . . . . (A)	31.0	1	21.0	23	27	1	0	0	0	3.8	—	13.6	3.4	4.0	28	13	5	0	0
Aswan . . . . . (A)	32.4	11	20.5	24	24	2	0	0	0	—	—	16.0	1	8.0	24.25	4	0	0	0
Siwa	27.3	16	18.3	23	7	0	0	0	0	8.0	—	16.6	19	4.9	30	17	1	0	0
Bahariya	25.7	16	18.0	23	5	0	0	0	0	9.5	—	14.3	19	6.0	27	12	0	0	0
Farafra	28.7	17	18.8	24	6	0	0	0	0	8.9	—	18.8	17	4.5	30	14	1	0	0
Dakhla	27.8	1	19.4	23	12	0	0	0	0	9,1	—	14.0	19	2.4	29	16	3	0	0
Kharga	28.6	1	19.4	23	15	0	0	0	0	8.8	—	16.2	3,19	3.2	29	9	3	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	28.5	12	20.3	23	20	0	0	0	0	—	—	18.0	3	11.0	29	0	0	0	0
Quseir	28.7	12	20.5	24	14	0	0	0	0	15.1	—	20.8	2	14.0	24	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

NOVEMBER — 1973

Station	Mean Sky Cover Oct					Rainfall mms									
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	Dev. From Normal	Max. Fall in one day		Number of Days With Amount of Rain						
								Amount	Date	< 0.1	≥ 0.1	≥ 1.0	≥ 5.0	≥ 10	≥ 25	≥ 50
Sallum	3.7	3.4	4.0	3.1	3.6	22.6	— 7.2	15.5	2	0	4	3	2	1	0	0
Mersa Matruh . (A)	2.4	5.0	4.8	3.4	3.8	58.1	+33.9	25.4	11	0	8	5	4	3	1	0
Alexandria . . (A)	2.8	5.4	5.6	4.4	4.9	29.4	— 3.8	13.9	1	1	7	5	2	1	0	0
Port Said . . . (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.8	2.9	4.5	1.8	2.5	3.8	— 0.2	1.7	2	0	5	2	0	0	0	0
Cairo . . . . . (A)	0.8	2.3	3.8	1.5	2.0	1.4	— 1.8	0.7	14.22	0	2	0	0	0	0	0
Fayoum	—	0.7	2.8	0.8	—	0.0	— 0.5	0.0	—	0	0	0	0	0	0	0
Minya . . . . . (A)	0.6	0.6	2.5	0.6	1.1	Tr.	— 0.1	Tr.	15	1	0	0	0	0	0	0
Assyout. . . . . (A)	0.4	0.1	0.8	0.5	0.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Luxor . . . . . (A)	0.2	0.8	1.1	0.5	0.6	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Aswan . . . . . (A)	0.1	0.5	0.9	0.8	0.5	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Siwa	1.1	1.9	3.4	1.5	2.0	1.4	+ 0.9	1.4	14	0	1	1	0	0	0	0
Bahariya	0.8	1.0	2.7	1.2	4.1	Tr.	— 0.5	Tr.	14	1	0	0	0	0	0	0
Farafra	—	0.6	1.2	0.4	—	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.5	1.4	0.2	0.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.1	0.9	1.3	0.4	0.6	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.2	1.1	1.3	0.6	0.9	0.0	— 0.4	0.0	—	0	0	0	0	0	0	0
Quseir	0.4	1.4	1.8	0.6	1.1	0.0	— 2.1	0.0	—	0	0	0	0	0	0	0

Table A 4.– DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

NOVEMBER — 1973

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice. Pellets	Hail											
Sallum	4	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Mersa Matruh (A)	8	0	0	0	0	1	0	0	0	0	2	0	0	4	1
Alexandria (A)	7	0	0	0	0	2	3	1	0	0	0	0	0	1	6
Port Said (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	5	0	0	0	0	0	3	0	0	0	0	0	0	10	1
Cairo (A)	2	0	0	0	0	0	5	0	9	0	7	0	0	16	0
Fayoum	0	0	0	0	0	0	1	1	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	10	0	4	0	3	0	0	24	0
Assyout (A)	0	0	0	0	0	0	1	0	0	0	0	0	0	29	0
Luxor (A)	0	0	0	0	0	0	0	0	10	0	2	0	0	26	0
Aswan (A)	0	0	0	0	0	0	0	0	1	1	3	0	0	27	0
Siwa	1	0	0	0	0	0	0	0	0	0	1	0	0	16	0
Bahariya	0	0	0	0	0	0	0	0	0	0	1	0	0	23	0
Farafra	0	0	0	0	0	0	0	0	0	0	2	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	5	0	0	29	0
Kharga	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	3	0	0	27	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0

TABLE A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

NOVEMBER — 1973

Station	calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	21	5	0	1–10	27	39	78	35	7	5	12	12	16	121	196	101	649
				11–27	0	0	0	0	0	0	0	0	0	10	28	7	45
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**27**	**39**	**78**	**35**	**7**	**5**	**12**	**12**	**16**	**131**	**224**	**108**	**694**
Mersa Matruh (A)	48	0	0	1–10	58	37	27	1	1	5	10	57	98	35	20	57	406
				11–27	50	48	7	0	0	0	2	13	42	35	19	48	264
				28–47	0	0	0	0	0	0	0	0	0	0	0	2	**2**
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				All speeds	**108**	**85**	**34**	**1**	**1**	**5**	**12**	**70**	**140**	**70**	**39**	**107**	**672**
Alexandria (A)	1	0	0	1–10	69	91	39	19	17	17	54	79	35	30	25	94	569
				11–27	11	34	0	0	0	0	1	14	17	10	8	55	150
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				All speeds	**80**	**125**	**39**	**19**	**17**	**17**	**55**	**39**	**52**	**40**	**33**	**149**	**719**
Tanta	29	2	0	1–10	132	70	11	2	1	1	4	55	74	78	122	79	629
				11–27	12	23	2	0	0	0	0	0	2	6	2	13	60
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				All speeds	**144**	**93**	**13**	**2**	**1**	**1**	**4**	**55**	**76**	**84**	**124**	**92**	**689**
Cairo (A)	26	0	220	1–10	50	47	29	14	16	8	20	19	25	39	35	41	341
				11–27	54	37	1	1	0	0	4	7	11	7	7	4	133
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				All speeds	**104**	**82**	**30**	**15**	**16**	**8**	**24**	**26**	**36**	**46**	**42**	**45**	**474**
Fayoum	7	0	3	1–10	162	252	13	8	7	9	14	21	43	47	24	39	639
				11–27	1	44	23	0	0	0	0	0	0	2	0	0	71
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				All speeds	**163**	**296**	**36**	**8**	**7**	**9**	**14**	**21**	**43**	**50**	**24**	**39**	**710**
Minya (A)	4	0	0	1–10	364	28	5	3	4	12	21	12	19	26	25	57	576
				11–27	104	22	0	0	0	0	0	0	0	0	8	6	140
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				All speeds	**468**	**50**	**5**	**3**	**4**	**12**	**21**	**12**	**19**	**26**	**33**	**63**	**716**
Asyout (A)	12	14	0	1–10	61	4	0	0	1	1	6	5	5	122	235	101	601
				11–27	50	10	6	0	0	0	0	0	0	3	10	20	93
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				All speeds	**111**	**14**	**6**	**0**	**1**	**1**	**6**	**5**	**5**	**125**	**245**	**181**	**694**
Luxar (A)	143	0	0	1–10	42	27	10	13	13	24	113	41	30	40	79	117	555
				11–27	0	0	0	0	0	0	0	0	0	1	12	9	22
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	**0**
				All speeds	**42**	**27**	**16**	**13**	**13**	**24**	**113**	**41**	**30**	**41**	**91**	**126**	**577**

Table A 5 (*cont'd.*)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

NOVEEMBER — 1972

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Aswan	16	0	0	1—10	196	72	1	2	0	1	3	5	7	8	24	201	520
				11—27	55	23	1	0	0	0	0	1	0	0	6	98	184
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**251**	**95**	**2**	**2**	**0**	**1**	**3**	**6**	**7**	8	**30**	**299**	**704**
Siwa	102	0	0	1—10	13	68	72	45	28	27	16	21	23	118	95	47	573
				11—27	1	2	3	3	0	0	0	0	0	6	14	16	45
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**14**	**70**	**75**	**48**	**28**	**27**	**16**	**21**	**23**	**124**	**109**	**63**	**618**
Dakhla	0	15	0	1—10	92	27	8	10	1	2	5	13	46	68	152	160	584
				11—27	54	47	0	0	0	0	0	0	0	4	2	14	121
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**146**	**74**	**8**	**10**	**1**	**2**	**5**	**13**	**46**	**72**	**154**	**174**	**705**
Kharga	2	7	0	1—10	144	68	28	13	10	9	5	10	2	17	28	104	428
				11—27	205	27	0	0	0	0	0	0	0	0	0	41	273
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**349**	**95**	**28**	**13**	**10**	**9**	**5**	**10**	**2**	**17**	**28**	**145**	**711**
Hurghada	1	0	0	1—10	46	15	3	3	3	2	1	3	1	1	106	51	255
				11—27	146	14	0	0	0	1	1	1	0	0	177	140	235
				28—47	3	0	0	0	0	0	0	0	0	0	0	2	5
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**195**	**29**	**3**	**3**	**3**	**3**	**2**	**3**	**1**	**1**	**283**	**193**	**719**
Qusseir	0	3	0	1—10	13	22	25	12	5	3	1	0	2	37	186	40	346
				11—27	152	49	4	0	0	0	0	0	0	8	4	154	371
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**165**	**71**	**29**	**12**	**5**	**3**	**1**	**0**	**2**	**45**	**190**	**194**	**717**

UPPER AIR CLIMATOLOGICAL DATA

Table B 1 (*contd*).—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

NOVEMBER 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 0000 UT	Surface	20	*1018m.b.	*1027m.b.	*1012m.b.	20	14.8	17.5	11.6	20	11.2
	1000	20	183	250	126	20	15.4	17.6	12.9	20	11.5
	850	20	1536	1593	1488	20	4.7	7.7	— 1.4	20	— 1.4
	700	20	3101	3168	3050	20	— 0.6	3.4	— 4.3	20	—11.6
	600	20	4318	4376	4256	20	— 7.7	— 3.2	—11.7	20	—19.8
	500	20	5713	5794	5642	20	—16.9	—11.6	—21.6	20	—28.1
	400	20	7349	7465	7260	20	—28.9	—24.2	—33.0	19	—38.8
	300	20	9338	9499	9249	20	—43.6	—38.8	—47.2	20	—49.6
	250	18	10540	10726	10441	18	—50.8	—43.9	—55.1	18	—59.4
	200	19	11980	12182	11868	19	—56.4	—49·7	—61.5	15	—63.5
	150	18	13797	14002	13698	18	—59.9	—54.1	—63.7	8	—65.9
	100	17	16303	16489	16188	17	—64.6	—57.5	—71.7	—	—
	70	17	18493	18707	18388	17	—62.7	—58.9	—67.3	—	—
	60	14	19501	19720	19390	14	—60.8	—57.3	—64.0	—	—
	50	14	20600	20817	20490	14	—59.1	—56.8	—61.7	—	—
	40	12	22092	22210	21980	12	—58.2	—55.2	—68.8	—	—
	30	12	23844	24082	23706	12	—54.8	—53.1	—58.4	—	—
	20	4	26379	26550	26222	4	—50.4	—50.0	—51.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 UT	Surface	30	*1002m.b.	*1011m.b.	*993m.b.	30	14.3	17.2	11.0	30	8.6
	1000	30	159	232	81	25	14.3	17.2	10.9	25	4.8
	850	30	1520	1567	1447	30	7.2	13.2	0.5	30	1.8
	700	30	3102	3156	3030	30	1.3	7.0	— 3.7	30	—15.5
	600	30	4329	4383	4230	29	— 5.9	— 0.7	—13.0	29	—22.6
	500	0	5736	5877	5605	29	—15.3	—11.4	—20.0	29	—31.3
	400	8	7388	7491	7213	28	—27.3	—22.8	—33.1	28	—40.8
	300	29	9397	9541	9192	28	—42.0	—37.4	—46.7	28	—53.3
	250	28	10612	10760	10410	28	—49.5	—46.1	—54.0	28	—59.5
	200	28	12023	12215	11886	28	—55.6	—50.2	—61.3	23	—64.7
	150	20	13892	14044	13766	20	—61.6	—57.9	—67·1	5	—68.1
	100	13	16388	16484	16282	13	—68.2	—64.1	—74.0	—	—
	70	9	18531	18610	18453	9	—66.6	—60.3	—71.0	—	—
	60	7	19499	19540	19430	7	—63.9	—62.3	—66.2	—	—
	50	7	20580	20631	20522	7	—62.1	—58.8	—64.3	—	—
	40	7	22069	22110	22050	7	—57.7	—53.6	—60.9	—	—
	30	7	23805	23840	23749	7	—54.1	—50.9	—56.1	—	—
	20	4	26428	26466	26387	4	—50.8	—48.0	—53.1	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 UT	Surface	24	*994m.b.	*1000m.b.	*989m.b.	24	14.8	19.6	10.2	24	3.6
	1000	24	143	193	098	2	10·6	11.0	10.2	2	2—0
	850	24	1519	1551	1485	23	12.0	18.3	8.1	23	— 0.3
	700	23	3131	3182	3093	23	6.4	10.6	2.1	23	—10.9
	600	22	4382	4422	4334	22	— 0.2	3.1	— 3.6	22	—16.6
	500	21	5819	5899	5762	21	— 8.8	— 5.6	—12.5	21	—23.4
	400	20	7512	7595	7439	19	—20.8	—18.3	—25.3	19	—33.6
	300	20	9574	9668	9480	20	—36.3	—32.8	—42.2	20	—46.3
	250	26	10815	10905	10696	20	— 45.5	—42.1	—48.0	19	—54.2
	200	18	12265	12365	12156	18	— 55.2	—53.2	—57.9	18	—63.1
	150	18	14063	14160	13978	18	—64.9	—59.2	— 70.9	1	—65.6
	100	12	16477	16574	16406	12	— 74.1	—70.8	—79.2	—	—
	70	4	18540	18608	18483	3	—69.7	—68.0	—71.2	—	—
	60	2	19450	19460	19440	2	—67.4	— 66.8	—67.9	—	—
	50	2	20537	20560	20514	2	—64.2	—64.0	—64.3	—	—
	40	2	22005	22010	22000	2	—59.9	—59.7	—60.0	—	—
	30	2	23705	23714	23696	2	—54.6	—54.6	—54.7	—	—
	20	1	26330	—	—	1	—48.2	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month

* The atmospheric pressure corrected to the elevation of the radiosonde station

UPPER AIR CLIMATOLOGICAL DATA

Table B 1 (*contd.*)—MONTHLY MEANS, ABSOLUTE HIGHER AND LOWER VALUES OF ALTITUDE, AIR TEMPERATURE AND DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

NOVEMBER — 1973

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Meras Matruh (A) 1200 U.T.	Surface	21	1013mb.*	1018mb.*	1010mb.*	21	20.4	24.9	16.2	21	12.4
	1000	21	176	246	107	21	18.3	23.6	12.5	21	11.1
	850	21	1536	1593	1466	21	6.0	10.8	0.2	21	0.2
	700	21	3108	3161	3038	31	— 0.4	5.8	7.0	21	—11.4
	600	21	4327	4399	4237	21	— 7.2	—2.8	—11.6	21	—18.1
	500	21	5725	5815	5615	21	—16.2	—11.7	—20.7	21	—26.6
	400	21	7365	7469	7237	21	—28.4	—22.9	—32.0	21	—38.6
	300	21	9364	9517	9223	21	—42.7	—38.3	—47.3	20	—51.8
	250	21	10588	10828	10421	20	—50.5	—46.7	—53.0	20	—58.6
	200	21	12024	12268	11856	20	—56.0	—48.5	—59.9	19	—63.6
	150	21	13812	14058	13646	20	—59.2	—52.8	—64.8	9	—65.3
	100	21	16350	16530	16142	20	—63.8	—58.3	—70.2	2	—65.4
	70	17	18544	18660	18322	17	—61.6	—55.7	—66.2	—	—
	60	16	19547	19870	19300	16	—59.7	—56.7	—63.4	—	—
	50	16	20658	20780	20412	16	—56.4	—52.8	—60.0	—	—
	40	11	22617	22300	21930	11	—54.4	—53.0	—56.6	—	—
	30	9	23987	24066	23917	9	—50.6	—48.9	—52.9	—	—
	20	8	26668	26732	26602	8	—45.7	—43.1	—49.4	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	30	1001m.b.*	1009m.b.*	993m.b.*	30	21.8	25.8	16.4	30	6.5
	1000	30	149	208	079	21	21.1	25.8	16.3	21	5.8
	850	30	1527	1590	1460	30	8.6	14.1	3.1	30	—2.1
	700	30	3111	3157	3019	30	1.8	7.1	—5.4	30	—18.1
	600	30	4339	4386	4228	30	— 4.7	9.0	—8.8	30	—27.5
	500	30	5745	5842	5621	30	—14.0	— 6.5	—19.9	30	—32.4
	400	30	7409	7549	7322	30	—26.1	—19.7	—31.9	30	—42.7
	300	30	9430	9627	9218	29	—40.6	—34.4	—45.0	29	—54.6
	250	29	10653	10874	10441	28	—47.5	—42.0	—51.7	28	—61.0
	200	28	12103	12335	11921	28	—54.6	—49.2	—60.1	25	—66.3
	150	25	13920	14161	13788	24	—59.1	—53.8	—65.6	11	—69.5
	100	24	16438	16648	16324	24	—65.2	—61.5	—71.7	—	—
	70	20	18610	18806	18534	20	—63.9	—58.3	—75.4	—	—
	60	16	19617	19770	19470	16	—60.9	—56.4	—66.0	—	—
	50	16	20722	20883	20570	16	—57.7	—52.5	—62.1	—	—
	40	11	22202	22540	21940	11	—54.5	—51.0	—57.6	—	—
	30	9	23988	24193	23845	9	—52.2	—49.4	—57.0	—	—
	20	7	26645	26835	26490	7	—46.3	—43.7	—51.3	—	—
	10	3	30609	31445	29134	3	—40.4	—36.6	—44.9	—	—
Aswan 1200 U.T.	Surface	24	993m.b.*	1000m.b.*	987m.b.*	24	26.0	31.2	20.4	24	7.6
	1000	24	131	193	077	1	20.4	—	—	1	2.3
	850	24	1526	1561	1485	24	13.3	20.2	9.8	24	— 3.1
	700	23	3143	3183	3110	23	7.2	12.2	2.0	23	—16.0
	600	22	3496	4451	4351	22	0.3	4.0	— 3.0	22	—21.6
	500	22	5836	5913	5769	22	— 8.3	— 5.8	—11.5	21	—27.5
	400	21	7532	7624	7450	20	—20.3	—18.5	—23.6	20	—37.8
	300	20	9599	9704	9492	20	—35.7	—32.9	—39.0	20	—50.1
	250	19	10847	10950	10737	19	—45.4	—42.4	—48.1	19	—58.8
	200	19	12306	12404	12197	19	—54.2	—50.8	—58.8	19	—65.6
	150	19	14113	14227	14037	19	—64.0	—57.3	—66.0	2	—69.4
	100	17	16543	16657	16442	17	—72.6	—67.2	—77.5	—	—
	70	9	18642	18714	18577	9	—70.8	—66.7	—78.0	—	—
	60	7	19601	19700	19536	7	—64.4	—62.2	—71.0	—	—
	50	7	20694	20794	20627	7	—59.7	—54.4	—63.9	—	—
	40	6	22228	22370	22100	6	—55.8	—54.2	—58.0	—	—
	30	6	23952	24051	23865	6	—51.9	—50.2	—53.0	—	—
	20	5	26604	26709	26518	5	—46.9	—45.2	—47.8	—	—
	10	2	31328	31399	31256	2	—39.0	—37.3	—40.7	—	—

N = Number of observations of specified pressure surface.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

Table B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE; THE HIGHEST WIND SPEED IN THE UPPER AIR

NOVEMBER — 1973

	Station	Freezing Level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh (A)	2537 (20)	773 (20)	—6.7 (19)	3900	638	—16.7	1380	870	—12.4	12905 (17)	191 (17)	—60.7 (17)	19730	079	—68.1	10200	206	—49.7	10305	205	230	132
	Helwan	3199 (30)	696 (30)	—14.7 (30)	4240	610	—20.2	1630	845	—0.3	13678 (12)	165 (12)	—63.3 (12)	16920	093	—76.2	9080	306	—43.6	11520	220	295	150
	Aswan . . . (A)	4244 (22)	612 (22)	—16.4 (22)	4320	573	—16.3	3370	680	—13.5	14773 (3)	141 (3)	—69.5 (3)	16429	100	—77.2	11920	209	—57.3	4685	598	255	40
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh (A)	2793 (21)	731 (21)	—9.6 (21)	3990	631	—10.2	1600	842	—9.5	12947 (19)	179 (19)	—60.0 (18)	16480	100	—70.2	9920	272	—51.3	9114	316	220	140
	Helwan	3455 (30)	674 (30)	—18.7 (30)	4570	587	—24.2	1020	811	—1.9	12682 (24)	177 (24)	—60.3 (24)	16600	098	—65.7	8650	328	—43.2	10610	251	275	149
	Aswan . . . (A)	4403 (22)	601 (22)	—21.6 (22)	5100	557	—22.0	3510	670	—18.1	15453 (10)	123 (10)	—71.4 (10)	17730	083	—71.7	14130	148	—70.2	12625	188	270	130

N = The number of cases the element has been observed during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

MERSA MATRUH (A) NOVEMBER 1973

Time	Pressure Surface Millibar.	Wind between ranges of direction (000—360°). 345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344		Number of Calm winds	Total Number of Observations T.N	Mean Scalar wind Speed Knot
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	1	35	0	—	1	3	1	2	0	—	0	—	3	8	3	6	9	8	1	10	0	—	1	14	0	20	9
	1000	0	—	1	7	0	—	1	5	1	7	1	10	2	8	1	6	3	14	5	13	3	16	2	24	0	20	13
	850	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	2	10	6	14	5	14	6	14	0	20	14
	700	0	—	1	12	0	—	0	—	0	—	1	13	1	8	0	—	4	23	6	17	3	17	3	17	0	19	17
	600	1	10	0	—	0	—	1	8	0	—	0	—	2	9	0	—	5	29	6	23	3	28	0	—	0	18	22
	500	0	—	0	—	1	26	0	—	1	4	0	—	0	—	2	12	8	42	4	28	1	51	1	15	0	18	32
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	11	46	4	44	0	—	2	31	0	18	42
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	11	0	—	9	79	3	40	0	—	0	—	0	15	61
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	7	80	5	54	0	—	1	39	0	14	64
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	21	5	71	3	45	1	4	0	—	0	10	55
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	37	7	59	0	—	0	—	0	—	0	8	56
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	46	0	—	0	—	0	—	0	6	46
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	31	1	45	0	—	0	—	0	2	38
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	2	19	0	—	1	4	0	—	0	—	0	—	1	4	0	—	3	11	3	11	5	10	6	8	0	21	10
	1000	0	—	0	—	1	6	0	—	0	—	0	—	0	—	0	—	5	13	2	11	10	11	2	10	0	20	12
	850	1	6	1	12	1	6	0	—	0	—	0	—	0	—	3	6	3	16	6	14	4	9	1	25	0	20	12
	700	1	8	1	5	1	11	0	—	0	—	0	—	2	14	1	2	2	24	5	18	5	18	2	23	0	20	16
	600	1	10	0	—	1	10	0	—	0	—	2	22	1	14	2	42	4	27	4	21	4	21	1	4	0	20	22
	500	1	8	0	—	1	16	0	—	0	—	0	—	1	20	2	8	8	42	3	43	3	16	1	16	0	20	29
	400	0	—	0	—	0	—	0	—	0	—	0	—	2	30	3	45	8	57	3	45	2	26	1	21	0	19	46
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	68	1	28	8	74	5	60	1	12	0	—	0	16	62
	250	0	—	1	6	0	—	0	—	0	—	0	—	1	69	0	—	7	81	2	48	1	27	1	17	0	13	61
	200	0	—	0	—	0	—	0	—	0	—	0	—	1	8	1	54	5	84	4	66	0	—	1	20	0	12	64
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	50	5	70	2	50	1	37	0	—	0	10	59
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	42	2	52	—	—	0	—	0	6	46
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	26	1	19	0	—	0	—	0	—	0	3	24
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3.—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.

HELWAN — NOVEMBER 1973

Station	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360°)																								Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	11	9	8	9	1	5	2	4	0	—	1	6	0	—	0	—	0	—	1	4	0	—	5	7	1	30	8
	1000	10	15	7	16	4	20	1	4	0	—	0	—	0	—	0	—	1	5	0	—	2	6	0	25	15
	850	3	9	3	15	7	15	1	7	1	11	1	7	1	11	0	—	2	13	3	10	5	15	3	24	0	30	14
	700	2	8	3	14	3	8	1	11	0	—	0	—	1	11	2	17	3	14	2	22	8	20	5	15	0	30	15
	600	1	17	0	—	2	10	1	12	0	—	0	—	0	—	3	15	1	22	10	25	8	26	4	15	0	30	22
	500	0	—	0	—	0	—	1	10	0	—	0	—	0	—	1	24	5	33	10	34	11	30	1	9	0	29	30
	400	0	—	2	26	0	—	0	—	0	—	0	—	0	—	2	32	2	36	13	51	9	47	0	—	0	28	46
	300	0	—	0	—	1	13	0	—	0	—	0	—	0	—	1	15	4	56	13	68	5	68	1	28	0	25	60
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	44	10	71	5	70	1	30	0	22	62
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	60	7	87	3	50	0	—	0	15	71
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	128	6	92	1	114	0	—	0	8	99
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	51	0	—	1	46	0	—	0	2	48
	70	1	33	0	—	1	4	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	18
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	37	0	—	0	—	0	—	0	2	37
	50	0	—	0	—	0	—	1	51	0	—	0	—	0	—	0	—	1	17	0	—	0	—	0	—	0	2	34
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	28	0	—	0	—	0	2	28
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	3	8	9	12	0	—	0	—	0	—	0	—	0	—	1	5	3	5	4	2	0	—	10	9	0	30	9
	1000	6	14	10	14	1	28	0	—	0	—	0	—	0	—	0	—	0	—	2	4	0	—	2	6	0	21	13
	850	3	10	5	16	6	11	0	13	1	10	0	—	0	—	2	10	0	—	4	12	5	10	2	10	0	30	12
	700	1	10	4	9	1	16	2	—	0	—	2	6	0	—	3	15	3	14	6	25	6	16	4	14	0	30	16
	600	0	—	3	10	0	0	0	10	0	—	1	7	0	—	2	28	3	18	8	34	9	21	3	17	0	30	22
	500	2	22	0	—	0	0	1	—	0	—	0	—	0	—	3	30	2	22	10	43	11	31	1	16	0	29	33
	400	1	20	0	—	0	0	0	—	0	—	0	—	0	—	0	—	6	42	10	56	9	51	3	28	0	29	47
	300	1	22	0	—	0	0	0	—	0	—	0	—	0	—	1	37	4	47	12	70	6	88	1	42	0	25	46
	250	0	—	0	—	0	0	0	—	0	—	0	—	0	—	0	—	3	47	13	83	6	68	0	—	0	22	78
	200	0	—	0	—	0	0	0	—	0	—	0	—	0	—	0	—	1	43	13	74	2	74	0	—	0	16	72
	150	0	—	0	—	0	0	0	—	0	—	0	—	0	—	0	—	1	63	7	74	1	41	0	—	0	9	69
	100	0	—	0	—	0	0	0	—	0	—	0	—	0	—	0	—	2	42	4	59	0	—	0	—	0	6	53
	70	0	—	0	—	0	0	0	—	0	—	0	—	1	29	0	—	1	20	1	47	0	—	0	—	0	3	32
	60	0	—	0	—	0	0	0	—	0	—	0	—	0	—	0	—	1	53	1	50	0	—	—	—	0	2	52
	50	0	—	0	—	0	0	0	—	0	—	0	—	0	—	0	—	1	36	1	25	0	—	—	—	0	2	30
	40	—	—	—	—	—	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of direction during the month.

TN= The total number of cases the wind has been observed for all directions during the month.

Table B 3.—(*contd.*) NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A) — NOVEMBER 1973

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360°)																						Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	)ff) m	N	(ff) m	N	(ff) m			
0000 T.U.	Surface	18	10	3	9	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	0	—	2	11	0	24	10
	1000	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	14
	850	5	11	6	16	3	12	0	—	0	—	0	—	1	14	0	—	1	5	6	—	3	11	4	19	0	23	14
	700	0	—	0	—	2	10	1	4	0	—	0	—	0	—	0	—	6	16	5	13	3	17	0	—	0	17	14
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	24	1	30	0	—	0	—	0	3	26
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	16	10	0	—	1	8	0	—	0	—	1	7	0	—	0	—	1	10	2	7	0	—	2	10	1	24	9
	1000	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	10
	850	3	8	1	11	1	10	2	5	0	—	2	4	0	—	2	11	2	6	0	—	3	10	7	10	0	23	9
	700	1	3	1	4	0	—	0	—	0	—	0	—	0	—	2	14	7	17	8	14	3	14	1	8	0	23	14
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	26	9	26	5	24	5	26	0	—	0	21	26
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	37	11	37	7	39	2	30	0	—	0	21	37
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	10	55	10	46	0	—	0	—	0	20	51
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	64	11	66	0	—	0	—	0	19	65
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	71	14	73	1	74	0	—	0	18	72
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	75	15	77	0	—	0	—	0	18	77
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	79	9	76	0	—	0	—	0	15	77
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	58	5	44	5	55	1	32	0	—	0	12	49
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	1	42	1	11	0	—	0	3	22
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	5	0	—	1	2	2
	50	0	—	0	—	0	—	0	—	1	15	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	15
	40	0	—	0	—	0	—	0	—	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	1	13
	30	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N=The numher of cases the element has been observed during the month.

TN=The total number of cases the wind has been observed for all directions during the month.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — NOVEMBER 1973

For the month as a whole the mean daily air temperature was below normal and the mean daily daily relative humidity was rather normal. The total monthly rainfall was 58.1 mm. against 24.2 mm. for normal. The maximum daily rainfall was 25.4 mm. reported on the 11th.

The daily maximum air temperatures were below normal the whole mnoth apart from a short warm spell on the 16th yielding the highest maximum air temperature for the month (25.3°C). The lowest maximum air temperatrue was 16.4°C reported on the 22nd. The daily minimum air temperatures were rather normal the whole month.

The highest maximum soil temperature was lower than last November at depths between 2 and 20 cm. with departures between 3.5°C (at 5 cm.) and 1.2°C (at 20 cm.), higher at 50 cm. by 0.4°C and the same as last November at 100 cm. depth. The lowest minimum soil temperature was higher than last November at 2 cm. depth by 0.6°C ; the same at 5 cm. and lower than last November at depths between 10 and 100 cm. with departures between 0.8°C (at 10 cm.) and 2.2° (at 50 cm.).

The mean daily actual sunshine duration was lower than normal by 0.6 hour. The mean daily wind speed at 1.5 met. height was lower by 0.4 m./sec. than the corresponding value of November 1972.

TAHRIR — NOVEMBER 1973

For the month as a whole the mean daily air temperature was markedly subnormal and the mean daily relative humidity was rather normal. The total monthly rainfall was 3.2 mm. against 4.9 mm. for normal.

The daily maximum air temperatures were below normal the whole month apart from three short warm spells on the (15th & 16th), 18th and 29th. The first spell yielded highest maximum air temperature for the month (28.2°C) on the 16th. The lowest maximum air temperature was (19.0°C) reported on the 23rd. The daily minimum air temperatures were markedly below normal the whole month. The loewst minimum air temperature for the month was 5.5°C reported on the 27th.

The highest maximum soil temperatures were lower than last November at depths between 2 and 10 cm. with departures between 3.3°C (at 2 cm.) and 0.3°C (at 10 cm.) ; and higher than last November at depths between 20 and 100 cm. with departures between 0.1°C (at 20 cm.) and 1.3°C (at 50 cm.). The lowest minimum soil temperatures were also lower than last November at depths between 2 and 10 cm. with departures between 2.1°C (at 5 cm.) and 0.8°C (at 10 cm. and kigher than last November at depths between 20 and 100 cm. with departures between 2.1°C (at 50 cm.) and 0.6°C (at 100 cm.).

The mean daily values of actual sunshine duration, pan evaporation and wind speed at 1.5 met. height were slightly below the corresponding normal values.

BAHTIM — NOVEMPER 1973

For the month as a whole the mean daily air temperature was below normal and the mean daily relative humidity was rather normal. The month was rainles apart from light rain (0.2 mm.) on the 22nd, while the monthly rainfall is 3.4 mm.

Two cold waves were experienced in the periods (3rd-8th) and (22nd-30th). The second cold wave yielded both the lowest maximum air temperature for the month (17.5°C) on the 2.3rd and the lowest minimum air temperature (4.0°C) on the 27th. In the rest of the month, weather was mild.

The highest maximum soil temperatures werehigher than the corresponding values of last November at all depths with departures between 1.9°C (at 5 cm.) and 0.2°C (at 100 cm.). The lowest minimum soil temperature was lower than last November at 2 cm. depth by 0.6°C ; the same at 5 cm. and higher than last November at depths between 10 and 100 cm. with departures between 1.8°C (at 10 cm.) and 0.1°C (at 100 cm.).

The mean daily wind speed at 1.5 met. height was lower than normal by 0.2 m./sec. The mean daily actual sunshine duration and pan evaporation were higher than normal by 0.6 hour and 0.17 mms.

KHARGA — NOVEMPER 1973

For the month as a whole the mean daily air temperature was below normal, and the mean relative humidity was rather normal.

The daily maximum air temperatures were below normal the whole month. The highest maximum air temperature for the month was 28.6°C reported on the 1st, and the lowest maximum air temperature was 19.4°C reported on the 23rd. The daily minimum air temperatures were below normal most days of the month. The lowest minimum air temperature for the month was 3.2°C reported on the 29th.

The highest maximum soil temperatures were higher than the corresponding values of last November at all depths with departures between 4.0°C (at 5 cm.) and 0.6°C (at both 50 and 100 cm.). The lowest minimum soil temperatures were lower than the corresponding values of last November at all depths with departures between 3.2°C (at 10 cm.) and 0.6°C (at 100 cm.).

The mean daily wind speed at 1.5 met. was higher than normal by 0.1 m./sec. The mean daily actual sunshine duration and pan evaporation were lower than normal by 0.1 hour and 1.87 mm.

Table C 1.— AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

NOVEMBER — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	—5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Mersa Matruh . . .	20.8	13.5	17.0	15.4	18.7	24	24	24	24	17.1	3.2	0.0	0.0	0.0	0.0	0.0
Tahrir	24.5	9.8	15.8	12.4	19.2	24	24	24	21.3	12.6	5.6	0.0	0.0	0 0	0.0	0.0
Bahtim	23.3	8.8	15.4	12.0	18·8	24	24	23.9	20.1	11.8	5.4	0.1	0.0	0.0	0.0	0.0
Kharga.	25.0	10.5	17.9	15.2	20.8	24	24	23.8	22.7	17.1	8.1	1.5	0.0	0.0	0 0	0.0

Table C 2.—EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS.

NOVEMBER — 1973

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Mersa Matruh . . .	25.3	16	16.4	22	17.0	8	9.8	30	8.2	27	—	—
Tahrir	28.2	16	19.0	23	14.3	1	5.5	27	3.2	27	3.2	29
Bahtim.	26.8	1	17.5	23	13 9	1	4.0	27	0.5	27	—0.1	26
Kharga	28.6	1	19.4	23	16.2	3.19	3.2	29	1.0	29	—	—

Table C 3. – (SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL

NOVEMBER — 1973

STATION	(Solar+Sky) Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day	Date
M.Matruh	242.1	229·7	316.9	72	81	70	49	28	11.7	12.3	16.7	13	7.8	29	3.3	3.24	58.1	25.4	11
Tahrir. .	314.8	242.4	318.7	76	74	53	40	11	9.8	10.2	13.7	2	6.3	27	3.4	4 03	3 2	1 4	14
Bahtim .	334.7	259.8	319.8	81	70	44	30	6	9.0	8.9	12.6	18	6.0	25	4.8	4.43	0.2	0 2	22
Kharga .	344.4	304.0	328.0	93	48	32	20	11	7.1	7.1	10.2	3	4.3	11	9.2	7.82	0.0	0.0	—

Table C 4.– EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms) IN DIFFERENT FIELDS

NOVEMBER — 1973

Station	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
Mersa Matruh.	H	23.3	22.0	20.2	21.0	23.9	24.0	24.6	—	—	—	—	—	—	—	—	—
	L	9.6	9.7	11.4	14.2	17.3	20.0	22.4	—	—	—	—	—	—	—	—	—
Tahrir	H	30.8	29.4	26.8	24.8	25.7	26.5	27.3	27.3	22.6	22.5	22.4	21.6	22 5	23.9	25.0	—
	L	9.7	9.6	11.4	15.4	18.8	21.4	24.1	25.4	11.2	11.4	11.8	14.0	16.5	19.0	21.5	—
Bahtim	H	36.2	31.9	28.1	26.3	27.5	28.0	27.8	26 7	24.1	22.1	21.2	21.0	22.2	23.3	23.4	—
	L	9.5	10.4	14.8	19.1	22.5	24.6	26.5	26.5	9.7	11.2	13.2	14.9	17.5	20.1	22.2	—
Kharga . . .	H	40.5	36.5	31.8	29.0	29.6	30.7	30.6	30.1	—	—	—	—	—	—	—	—
	L	6.4	9.3	12.2	17.2	23.0	26.6	29.1	29.6	—	—	—	—	—	—	—	—

Talbe C 5.–SURFACE WIND

NOVEMBER — 1973

Station	Wind Speed m/ses at 1½ metres			Days with surface wind speed at 10 metres							Max. Gust. (knots) at 10 metres	
	Mean of the day	Night time mean	day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	value	Date
Mersa Matruh.	3.4	2.9	3.9	30	18	10	6	2	0	0	41	23
Tahri.	1.7	1.1	2.3	26	12	4	2	0	0	0	35	22
Bahtim	1.8	0.9	2.7	25	17	4	0	0	0	0	30	22
Kharga. . . .	3.4	2.5	4.2	30	21	13	2	0	0	0	32	8

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MONTHLY WEATHER REPORT

VOLUME 16 NUMBER 12

DECEMBER, 1973

U.D.C. 551, 506.1 (62)

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

PUBLICATIONS OF THE METEOROLOGICAL AUTHORITY OF THE ARAB REPUBLIC OF EGYPT—CAIRO

In fulfilment of its duties, the Egyptian Meteorological Authority issues serveral reports and publications on weather, climate and agro-meteorology. The principal publications are described on this page.

Orders for publications should be addressed to :

"Chairman of the Board of Directors, Meteorological Authority, Kubri-el-Qubbeh — CAIRO".

THE MONTHLY WEATHER REPORT

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviations from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper air, and agro-meteorological data for Egypt.

As from January 1964, the Monthly Weather Report was pressed to give climatological data for a representative selection of synoptic stations.

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

Gives a review of weather experienced in the agro-meteorological stations of Egypt as well as monthly values of certain elements.

THE ANNUAL REPORT

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during all months of the year.

CLIMATOLOGICAL NORMALS FOR EGYPT

A voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.

METEOROLOGICAL RESEARCH BULLETIN

First issued in January 1969 on a bi-annual basis. It includes research works carried out by members of staff of "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

As from October 1970, the Meteorological Authority started to issue a new series of publications in the form of Technical Notes (non periodical) on subjects related to studies and applications of meteorology in different fields for the benefit of personnel working in these fields

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
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Note : For explanatory notes on the tables please refer to Volume 16, Number 1 (January 1973).

GENERAL SUMMARY OF WEATHER CONDITIONS

DECEMBER 1973

Abnormal warm winter during the 1st half of the month-Subnormal rainfall.

PRESSURE DISTRIBUTION

Two rapid depressions passed through East Mediterranean on the 7th & 12th. A deep trough passed on the 16th. High pressure established over the region otherwise.

Apart from too short periods round the 7th and 16th. the barometric pressure was above normal.

SURFACE WIND

Wly or WSly winds prevailed mostly over the northern coasts, while Nly & NWly or NEly winds were the most prevailing otherwise. Fresh winds were experienced during several days in scattered parts mainly in the Red Sea and Western Desert districts.

TEMPERATURE

The first half of this month was characterized by two warm waves. During the second half weather was generally mild, but prononcedly cold, night time in the Western Desert and Upper Egypt.

Maximum air temperature was moderately above normal during the first half and slightly below normal in general during the second half of the month.

The highest and lowest maximum air temperatures were 33.5°C at Aswan on the 15th & 15.2°C at Siwa on the 16th respectively.

Minimum air temperature oscillated moderately round normal in the Mediterranean district; but in the middle and sonthern parts, it was generally above normal during the first half and below normal during the second half.

The highest and lowest minimum air temperatures reported were 18.6°C at Quseir on the 9th & 14th and-1.0°C at Dakhla on the 24th respectwely.

PRECIPITAEION

Rain was light and was confined to scattered places of the Mediterranean and Lower Egypt districts during the first and third weeks.

The monthly rainfall amounts were appseciably below normal.

The highest monthly rainfall reported was 21.0 mm at Dabaa.

The highest daily rainfall reported was 15.5 mm at Ras-El Hikma on the 20th.

OTHER WEATHER PHENOMENA

Early morning mist and fog developed over scattered parts in Delta, Cairo and North of Upper Egypt during several days of the month.

Rising sand was reported in scattered places during several days.

Cario, February 1976

Chairman (A. F. HASAN.)
Board of Directors

SURFACE DATA

Table A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

DECEMBER — 1973

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms.
			Maximum		Minimum		$\frac{A+B}{2}$	Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average		Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	Mean
Sallum	1021.3	+4.4	20.8	+0.4	11.7	+0.8	16.3	15.8	+0.6	11.1	—0.2	54	— 3	—	—	—	5.2
Mersa Matruh. (A)	1021.9	+4.3	19.5	—0.2	10.7	+0.7	15.1	15.1	+0.7	13.1	+1.9	81	+11	222.3	314.0	71	3.0
Alexandria (A)	1021.6	+4.0	20.9	+0.4	10.6	—0.2	15.8	15.5	+0.3	12.8	+0.3	73	+ 3	221.8	315.3	70	3.1
Port Said. (A)	1020.8	+3.6	21.0	+1.1	13.6	+0.3	17.3	16.6	+0.4	13.8	+0.3	73	+ 1	221.2	315.3	70	3.5
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1021.2	+3.9	21.3	0.0	7.8	—0.3	14.6	13.8	—0.6	11.6	0.0	77	+10	237.9	316.8	75	2.2
Cairo. (A)	1020.9	+2.9	21.1	+0.4	9.9	—0.5	15.5	15.2	—0.1	11.7	+0.4	66	+ 6	—	—	—	6.3
Fayoum.	—	—	22.5	+0.6	7.1	—1.2	14.8	14.9	+0.8	11.7	+1.1	69	+ 7	—	—	—	3.1
Minya. (A)	1020.2	+1.9	22.1	+0.2	6.1	—0.5	14.1	13.7	+0.2	10.3	+0.3	67	+ 6	265.9	323.0	82	5.6
Assyout. (A)	1019.7	+1.7	22.5	+0.3	6.8	—1.8	14.7	14.0	—1.0	9.7	—0.3	58	+ 9	—	—	—	6.0
Luxor. (A)	1017.9	+0.9	25.7	+0.9	5.9	—1.5	15.8	15.2	+0.1	10.2	—0.7	53	+ 1	—	—	—	4.5
Aswan. (A)	1017.3	+0.7	26.2	+0.7	9.7	—0.2	18.0	17.3	—0.1	10.6	+0.1	40	+ 4	—	—	—	13.6
Siwa	1021.6	+3.3	21.0	—0.2	6.4	+0.4	13.7	13.3	—0.1	9.7	+0.7	63	+ 9	255.9	320.1	79	4.7
Bahariya.	1021.1	+2.6	21.6	0.0	7.2	+0.6	14.4	14.1	+0.2	9.8	+0.4	57	+ 9	—	—	—	5.0
Farafra.	1022.1	+2.0	21.4	—0.3	6.4	+0.8	13.9	13.5	+0.3	9.1	+0.8	55	+ 9	—	—	—	5.7
Dakhla.	1020.0	+2.0	23.1	—0.1	5.0	—0.9	14.1	13.6	—0.3	8.2	—0.4	46	+ 4	—	—	—	7.0
Kharga.	1019.0	+1.6	23.8	—0.1	7.6	—0.3	15.7	16.1	+0.5	9.9	+0.7	48	+ 3	309.5	329.2	94	8.2
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada.	1018.5	+2.0	23.4	+0.8	12.0	+0.4	17.7	17.4	+0.2	12.0	—0.5	50	— 4	274.6	325.6	84	8.9
Quseir	1017.9	+1.4	23.4	—0.6	17.2	+1.5	20.3	20.0	+0.3	14.3	+0.1	50	— 1	—	—	—	8.5

Table A 2.--MAXIMUM AND MINIMUM AIR TEMPERATURE

DECEMBER — 1973

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Sallum	25.4	14	16.7	17	1	0	0	0	0	11.1	—	14.5	14,29	8.4	17	4	0	0	0
Mersa Matruh (A)	24.0	14	15.9	17	0	0	0	0	0	8.5	—	14.7	29	8.2	20	9	0	0	0
Alexandria (A)	23.5	6	17.4	16,17	0	0	0	0	0	7.5	—	14.0	8	7.3	30	12	0	0	0
Port said (A)	23.8	5	17.0	16	0	0	0	0	0	13.4	—	16.7	4	9.8	19	1	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	24.2	14	16.7	17	0	0	0	0	0	—	—	12.6	7	4.1	19	26	1	0	0
Cairo (A)	26.9	14	16.8	17	1	0	0	0	0	—	—	14.5	7	5.0	23	14	0	0	0
Fayoum	27.4	14	18.3	17	3	0	0	0	0	4.9	—	—	—	—	—	—	—	0	0
Minya (A)	29.0	14	18.4	18	4	0	0	0	0	4.4	—	8.5	4,14	1.6	23	31	8	0	0
Assyout (A)	28.2	14	18.2	17	4	0	0	0	0	3.6	—	10.2	14	3.6	18	29	7	0	0
Luxor (A)	32.0	15	21.0	18	16	2	0	0	0	0.2	—	10.0	17	2.0	26	30	9	0	0
Aswan (A)	33.5	15	21.0	18	17	3	0	0	0	—	—	14.4	16	6.0	26	16	0	0	0
Siwa	28.5	14	15.2	16	1	0	0	0	0	4.6	—	12.4	7	2.8	19	30	9	0	0
Bahariya	30.0	14	17.0	17	3	0	0	0	0	6.7	—	11.1	29	2.6	18	27	5	0	0
Farafra	28.6	14	16.6	18	3	0	0	0	0	5.7	—	9.4	31	2.2	18	31	6	0	0
Dakhla	30.5	14	16.8	18	7	1	0	0	0	5.1	—	10.0	29	—1.0	24	30	14	0	0
Kharga	32.0	15	19.2	18	7	2	0	0	0	5.2	—	12.4	14	1.2	24	23	6	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	26.8	7,15	20.2	18	7	0	0	0	0	—	—	14.8	9	9.5	23	2	0	0	0
Quseir	27.3	15	20.6	18	3	0	0	0	0	14.0	—	18.6	9,14	15.6	18	0	0	0	0

TABLE A 3.—SKY COVER AND RAINFALL

DECEMBER 1973

Station	Mean Sky Cover (Oct)					Rainfall (mms)										
	00 U.T.	06 U.T.	12 U.T.	18 U T	Daily Mean	Total Amount	Dev. From Normal	Max. Fall in one day		Number of days with Amount of Rain						
								Amount	Dte	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum (A)	2.9	1.9	3.1	2.1	2.4	0.2	—17.7	0.8	12.16	0	2	0	0	0	0	0
Mersa Matruh (A)	2.0	4.1	3.9	2.7	3.1	6.3	—33.2	3.1	6	2	4	2	0	0	0	0
Alexandria (A)	3.7	4.5	5.5	3.6	4.3	10.3	—42.5	5.2	16	1	5	3	1	0	0	0
Port Said (A)	0.0	2.2	2.8	1.8	2 3	0.2	—17.4	0.2	16	2	1	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.6	2.0	3.9	1.3	1.8	0.7	+ 0.7	0.5	16	0	2	0	0	0	0	0
Cairo. (A)	3.1	4.0	4.0	4.0	4.0	0.2	— 6.5	0.2	16	0	1	0	0	0	0	0
Fayoum.	—	0.8	1.9	1.2	—	0.1	— 3.9	0.1	16	0	1	0	0	0	0	0
Minya (A)	0.5	1.2	1.4	1.0	1.0	Tr.	— 0 6	Tr.	16	1	0	0	0	0	0	0
Assyout (A)	0.5	0 4	0.6	0.6	0.6	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.3	1.1	1.0	0.6	0.7	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.1	0.4	0.5	0.5	0.3	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Siwa.	2.1	2.4	3.3	1.5	2.3	0.3	— 1.8	0.3	16	0	1	0	0	0	0	0
Bahariya	0.8	1.9	1.8	1.2	1.3	Tr.	— 0.8	Tr.	16	1	0	0	0	0	0	0
Farafra	—	1.3	0.9	1.2	—	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Dakhla	0.1	0.5	0.5	0.0	0.4	0.0	— 0.6	0.0	—	0	0	0	0	0	0	0
Kharga	0.2	1.1	0.9	0 4	0.6	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.5	1.5	1.7	0.7	1.1	0.0	— 1.8	0.0	—	0	0	0	0	0	0	0
Quseir	0.4	1.8	2.2	0.7	1.2	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0

Table A 4. — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

DECEMBER — 1973

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 Metres	Fog Vis <1000 metres	Haze Vis ≥1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice. Pellets	Hail											
Sallum	2	0	0	0	0	0	0	0	0	0	4	0	0	12	0
Mersa Matruh (A)	4	0	0	0	0	0	0	0	0	0	6	2	0	7	2
Alexandira (A)	5	0	0	0	0	0	6	2	0	0	0	0	0	11	1
Port Said (A)	1	0	0	0	0	0	0	0	0	0	0	0	0	17	2
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	2	0	0	0	0	0	11	0	0	0	0	0	0	22	0
Cairo (A)	1	0	0	0	0	0	7	4	4	0	6	0	0	19	0
Fayoum	1	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	20	2	2	0	1	0		24	0
Assyout (A)	0	0	0	0	0	0	3	0	0	0	0	0	0	28	0
Luxor (A)	0	0	0	0	0	0	0	0	28	0	1	0	0	25	0
Aswan (A)	0	0	0	0	0	0	0	0	1	0	5	1	0	30	0
Siwa	1	0	0	0	0	0	1	0	0	0	0	0	0	15	1
Bahariya	0	0	0	0	0	0	2	0	0	0	0	0	0	23	0
Farafra	0	0	0	0	0	0	0	0	0	0	2		0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0		0	0	31	0
Kharga	0	0	0	0	0	0	0	0	0	0		0	0	28	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	5	0	0	24	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0

Table A 5. – NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

DECEMBER — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	22	0	0	1—10	4	14	54	44	37	39	23	8	21	135	122	37	538
				11—27	0	0	13	10	0	0	2	12	10	74	62	1	184
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**4**	**14**	**67**	**54**	**37**	**39**	**25**	**20**	**31**	**209**	**184**	**38**	**722**
Mersa Matruh (A)	23	0	0	1—10	58	46	53	40	24	37	27	63	69	45	20	26	508
				11—27	6	16	2	7	16	8	6	6	58	44	25	19	213
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				>48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**64**	**62**	**55**	**47**	**40**	**45**	**33**	**69**	**127**	**89**	**54**	**45**	**721**
Alexandria (A)	11	0	0	1—10	81	154	74	45	32	18	42	71	20	16	10	52	615
				11—27	0	37	0	0	0	0	0	19	28	13	10	11	118
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**81**	**191**	**74**	**45**	**32**	**18**	**42**	**90**	**48**	**29**	**20**	**63**	**733**
Tanta	21	0	0	1—10	133	134	52	33	5	3	11	41	65	43	62	72	654
				11—27	4	23	12	3	1	0	0	1	12	8	4	1	69
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**137**	**157**	**64**	**36**	**6**	**3**	**11**	**42**	**77**	**51**	**66**	**73**	**723**
Caire (A)	3	2	0	1—10	112	242	59	8	4	5	21	20	43	36	20	19	689
				11—27	0	31	19	0	0	0	0	0	0	0	0	0	50
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**112**	**373**	**78**	**8**	**4**	**5**	**21**	**20**	**43**	**36**	**20**	**19**	**739**
Fayoum	8	6	0	—10	447	32	3	0	2	7	18	13	1	7	18	86	634
				11—27	77	17	0	0	0	0	0	0	0	0	0	2	96
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**524**	**49**	**3**	**0**	**2**	**7**	**18**	**13**	**1**	**7**	**18**	**88**	**730**
Minya (A)	56	0	0	1—10	49	7	0	2	5	7	2	1	3	171	261	95	603
				11—27	40	9	0	0	0	0	0	0	0	2	9	25	85
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**89**	**16**	**0**	**2**	**5**	**7**	**2**	**1**	**3**	**173**	**270**	**120**	**688**
Asyout (A)	169	0	0	1—10	122	86	38	39	13	16	102	15	13	24	40	55	563
				11—27	0	0	0	0	0	0	0	0	0	0	3	8	11
				28—47	0	0	0	0	0	0	0	0	0	0	1	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**122**	**86**	**38**	**39**	**13**	**16**	**102**	**15**	**13**	**24**	**44**	**63**	**575**

Table A 5 (*contd.*) **—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES**

DECEMBER — 1973

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions
Luxor . . . . . (A)	3	0	0	1—10	245	109	5	1	2	0	0	0	0	0	0	145	507
				11—27	93	41	5	0	0	0	0	0	0	0	0	95	234
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**338**	**150**	**10**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**240**	**741**
Aswan . . . . . (A)	134	0	0	1—10	7	21	87	91	94	50	7	17	26	93	67	11	571
				11—27	1	0	1	4	11	0	4	0	1	3	9	5	39
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**8**	**21**	**88**	**95**	**105**	**50**	**11**	**17**	**27**	**96**	**76**	**16**	**610**
Siwa	7	28	0	1—10	79	90	24	12	4	10	16	41	49	74	147	114	660
				11—27	24	10	1	0	0	0	0	0	0	0	0	14	49
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**103**	**100**	**25**	**12**	**4**	**10**	**16**	**41**	**49**	**74**	**147**	**128**	**709**
Dakhla	2	14	0	1—10	102	114	30	6	3	2	1	3	2	11	21	138	493
				11—27	176	32	0	0	0	0	0	0	0	0	0	27	235
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**338**	**146**	**30**	**6**	**3**	**2**	**1**	**3**	**2**	**11**	**21**	**165**	**728**
Kharga	11	0	0	1—10	30	14	4	0	1	1	1	3	0	10	153	40	257
				11—27	91	0	0	0	0	0	0	0	0	8	222	155	476
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**121**	**14**	**4**	**0**	**1**	**1**	**1**	**3**	**0**	**18**	**375**	**195**	**733**
Hurghada	1	0	0	1—10	25	13	4	10	2	2	1	1	2	16	146	57	279
				11—27	196	68	1	0	0	0	0	0	0	0	17	182	464
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**221**	**81**	**5**	**10**	**2**	**2**	**1**	**1**	**2**	**16**	**168**	**239**	**743**
Quseir	—	—	—	1—10	—	—	—	—	—	—	—	—	—	—	—	—	—
				11—27	—	—	—	—	—	—	—	—	—	—	—	—	—
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All speeds	—	—	—	—	—	—	—	—	—	—	—	—	—

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHLY MEANS, ABSOLUTE HIGHER AND LOWER VALUES OF ALTITUDE, AIR TEMPERATURE AND DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

DECEMBER — 1973

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 0000 U.T.	Surface	30	*1020m.b.	*1029m.b.	*1013m.b.	30	13.8	17.0	9.5	30	9.9
	1000	30	196	265	138	30	14.0	17.2	9.0	30	10.1
	850	30	1552	1628	1493	30	7.2	15.3	0.4	30	0.4
	700	29	3134	3222	3023	29	0.2	4.4	— 4.2	29	—10.7
	600	29	4351	4446	4211	29	— 7.4	— 3.0	—11.3	29	—16.8
	500	28	5720	5850	5594	28	—16.6	—11.8	—21.9	28	—27.3
	400	28	7386	7488	7213	28	—28.4	—24.4	—32.3	28	—36.3
	300	28	9390	9544	9193	28	—43.1	—40.0	—47.2	28	—49.4
	250	27	10595	10764	16386	27	—51.1	—46.7	—59.0	27	—58.8
	200	27	12068	12936	11939	27	—57.5	—51.9	—64.0	17	—64.0
	150	25	13827	14001	13609	25	—62.6	—58.9	—66.4	2	—64.9
	100	23	16305	16474	16196	23	—67.7	—63.1	—71.1	—	—
	70	19	18478	1863[illegible]	18366	19	—63.8	—61.4	—66.1	—	—
	60	19	19459	19600	19340	19	—61.9	—59.0	—64.2	—	—
	50	19	20560	20714	20446	19	—60.4	—56.0	—65.5	—	—
	40	13	22062	22200	21950	13	—57.6	—53.0	—61.3	—	—
	30	13	23803	23954	23632	13	—54.5	—49.1	—58.0	—	—
	20	6	26400	26520	26230	6	—49.6	—44.4	—54.3	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	31	*1004m.b.	*1011m.b.	*999m.b.	31	12.7	17.0	9.4	31	7.4
	1000	28	174	232	131	27	12.8	17.0	9.1	27	7.5
	850	28	1531	1579	1484	28	8.3	16.0	0.0	28	— 7.7
	700	28	3121	3176	3055	28	1.7	8.7	— 2.3	28	—16.7
	600	28	4348	4428	4265	28	— 5.6	— 1.8	— 8.9	28	—23.3
	500	28	5754	5848	5659	28	—15.4	—12.6	—19.0	28	—30.1
	400	28	7403	7512	7291	28	—27.6	—23.3	—32.4	28	—40.0
	300	28	9413	9541	9284	28	—42.4	—37.9	—47.6	27	—53.5
	250	27	10527	10775	10486	27	—50.2	—44.7	—56.1	27	—60.7
	200	27	12063	12253	11916	27	—57.5	—52.1	—63.5	21	—67.5
	150	26	13865	14077	13720	26	—62.0	—48.9	—66.8	1	—70.7
	100	24	16326	16519	16218	24	—67.0	—65.8	—71.3	—	—
	70	23	18457	18640	18324	23	—67.4	—64.0	—75.5	—	—
	60	20	19433	19610	19320	20	—64.6	—61.5	—67.8	—	—
	50	20	20520	20696	20396	20	—61.6	—55.1	—65.0	—	—
	40	15	22022	22180	21900	15	—59.3	—52.8	—63.4	—	—
	30	15	23740	23905	23596	15	—54.7	—53.3	—57.7	—	—
	20	11	26381	26562	26214	11	—49.2	—48.2	—51.7	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 U.T.	Surface	31	*995m.b.	*1000m.b.	*993m.b.	31	12.6	17.0	7.0	31	2.7
	1000	31	152	193	119	2	11.2	11.8	10.6	2	3.6
	850	31	1527	1559	1506	31	13.5	20.0	8.1	31	1.1
	700	30	3144	3180	3103	30	6.3	10.4	2.3	30	—10.2
	600	30	4391	4441	4345	30	— 1.7	— 0.8	— 5.7	30	—17.0
	500	30	5818	5881	5756	30	—11.2	— 7.1	—16.0	29	—24.6
	400	27	7498	7568	7405	27	—23.2	—19.2	—27.9	27	—34.3
	300	27	9542	9625	9406	27	—38.3	—32.6	—45.2	27	—49.0
	250	27	10775	10867	10643	27	—46.4	—42.3	—53.3	27	—56.3
	200	26	12234	12341	12086	26	—55.9	—51.3	—60.8	25	—62.2
	150	23	14019	14141	13796	23	—66.1	—62.6	—69.4	—	—
	100	16	16439	16502	16316	16	—75.8	—71.4	—78.8	—	—
	70	10	18486	18562	18402	10	—75.5	—71.0	—81.4	—	—
	60	8	19435	19510	19380	8	—69.8	—68.5	—72.1	—	—
	50	8	20181	20567	20419	8	—65.5	—63.8	—67.1	—	—
	40	7	21950	22020	21890	7	—61.2	—60.3	—61.7	—	—
	30	7	23654	23727	23560	7	—55.7	—54.4	—57.1	—	—
	20	7	26267	26331	26206	7	—51.9	—50.7	—53.2	—	—
	10	—	—	—	—	—	—	—	—	—	—

* The atmospheric pressure corrected to the elevation of the radiosonde station.

N = The number of cases the element has been observed during the month.

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.(*cont.*)—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

DECEMBER — 1973

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 U.T.	Surface	30	*1020m.b.	*1027m.b.	*1012m.b.	30	19.1	25.4	15.1	30	11.0
	1000	30	193	260	124	30	16.7	23.1	13.5	30	9.0
	850	30	1562	1640	1479	29	8.4	15.2	2.0	28	— 0.6
	700	30	3140	3246	3050	30	0.8	4.0	— 5.5	30	— 9.7
	600	30	4364	4482	4254	30	— 6.4	— 3.7	—11.8	30	—19.9
	500	30	5770	5923	5632	30	—15.8	—12.5	—22.0	30	—24.8
	400	30	7411	7547	7280	30	—27.1	—19.8	—31.8	30	—36.1
	300	29	9420	9553	9253	29	—42.3	—38.9	—46.1	29	—50.9
	250	29	10629	10753	10453	29	—50.9	—46.0	—56.0	29	—58.7
	200	27	12056	12204	11879	27	—57.1	—51.1	—63.1	21	—63.6
	150	26	13854	14024	13696	26	—61.9	—57.7	—67.0	4	—67.4
	100	25	16359	16494	16146	25	—65.3	—60.8	—70.1	—	—
	070	23	18475	18664	18206	23	—64.1	—57.5	—69.9	—	—
	060	17	19516	19620	19450	17	—61.3	—56.0	—66.4	—	—
	050	17	20594	20802	20534	17	—59.2	—55.3	—66.3	—	—
	040	12	22111	22300	21910	12	—55.2	—51.5	—59.7	—	—
	030	10	23906	24044	23843	10	—50.5	—46.3	—55.7	—	—
	020	5	26580	26694	26542	5	—45.3	—42.3	—48.8	—	—
	010	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	31	*1003m.b.	*1009m.b.	*998m.b.	31	20.1	24.6	15.4	31	5.8
	1000	28	166	217	123	25	19.5	23.6	15.3	25	5.4
	850	28	1531	1537	1509	28	9.4	16.8	1.7	28	— 7.0
	700	28	3130	3204	3052	28	— 2.9	7.5	— 1.2	28	—16.5
	600	28	4367	4447	4275	28	— 4.5	— 0.4	— 7.8	28	—22.6
	500	28	5779	5874	5672	28	—14.2	—10.7	—17.1	28	—30.2
	400	27	7438	7551	7312	27	—25.9	—22.4	—31.7	27	—40 6
	300	27	9462	9597	9316	27	—41.3	—38.3	—44.3	27	—53 5
	250	27	10680	10811	10536	27	—48.9	—42.6	—53.7	27	—60.8
	200	27	12123	12245	11984	27	—56.3	—50.3	—63.7	23	—66.7
	150	27	13931	14118	13777	27	—61.3	—56.5	—65.0	5	—70.2
	100	27	16409	16573	16282	27	—68.4	—62.4	—71.7	—	—
	70	24	18553	18705	18365	24	—66.0	—62.5	—69.3	—	—
	60	23	19529	19680	19350	23	—63 6	—60.0	—67.3	—	—
	50	23	20622	20799	20414	23	—60.7	—57.1	—62.9	—	—
	40	22	22120	22320	21910	22	—57.8	—54 2	—67.1	—	—
	30	22	23872	24070	23 44	22	—52.0	—49.5	—55.8	—	—
	20	20	26537	26755	2 297	20	—46.5	—42.0	—53 9	—	—
	10	5	31149	31268	31061	5	—42.5	—41.4	—44.2	—	—
Aswan 1200 U.T.	Surface	31	*994m.b.	*999m.b.	*990m.b.	31	25.1	32.0	21.0	31	7.6
	1000	31	140	185	104	—	—	—	—	—	—
	850	31	1535	1572	1513	31	15.2	21.0	9.2	31	— 6.1
	700	31	3160	3201	3116	31	7.5	11.0	2.8	31	—15.7
	600	30	4411	4458	4358	30	— 0.5	3.4	— 5.0	30	—21.5
	500	30	5845	5895	5765	29	—10.0	— 6.4	—14.7	29	—30.3
	400	29	7528	7601	7419	29	—21.9	—16.7	—26.9	29	—39.7
	300	29	9584	9666	9480	29	—37.1	—31.1	—43.0	29	—52.0
	250	29	10822	10917	10673	29	—45.9	—41.6	—51.3	29	—59.5
	200	29	12276	12407	12130	29	—55.4	—51.7	—62.6	28	—67.3
	150	28	14074	14227	13981	28	—64.0	—55.3	—68.8	2	—69.8
	100	24	16703	16839	16636	24	—73.5	—64.2	—79.0	—	—
	70	16	18578	18642	18462	16	—72.9	—69.5	—80.5	—	—
	60	13	19526	19600	19420	13	—67 6	—64.0	—69.9	—	—
	50	13	20595	20663	20495	13	—63.0	—58.1	—66 2	—	—
	40	11	22085	22170	22030	11	—57.4	—51.7	—60.7	—	—
	30	9	23832	23902	23711	9	—51.8	—47.6	—55.6	—	—
	20	9	26701	26618	26341	9	—46.3	—42.9	—48.7	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

* The atmospheric pressure corrected to the elevation of the radiosonde stations.

TABLE B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE : THE HIGHEST WIND SPEED IN THE UPPER AIR

DECEMBER — 1973

	Station	Freezing Level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	Pressure (mb.)	Dew Point (°C)	Altitude (gpm)	pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000 - 360)°	Speed in Knots
		(N)	(N)	(N)							(N)	N)	(N)										
0000 U.T.	M. Matruh	2098 (29)	702 (29)	—9.4 (29)	4000	633	—17.7	1550	848	—1.0	14186 (21)	151 (21)	—65.1 (21)	16840	093	—79,4	11100	232	—57,1	11375	222	250	145
	Helwan	3327 (28)	684 (28)	—17.0 (28)	4210	616	—23.5	1193	850	—2.5	13124 (22)	162 (22)	—65.1 (22)	17100	089	—73.5	11130	233	—58.0	10360	258	280	150
	Aswan	4137 (30)	620 (30)	—15,9 (30)	4700	580	—18.1	3740	651	—10.1	16786 (9)	095 (9)	—76.4 (9)	18150	074	—73,8	15670	115	—76,0	3070	709	234	042
		(N)	(N)	(N)							(N)	(N)	(N)										
1200 U.T.	M. Matruh	3165 (30)	696 (30)	—9,6 (29)	3910	636	—14.6	1760	827	—5.4	13463 (24)	164 (24)	—63.7 (24)	16494	100	—70,0	10700	243	—55,3	11150	231	240	145
	Helwan	3560 (28)	666 (28)	—18.2 (28)	4350	605	—20.8	1650	831	—4.6	14088 (26)	153 (26)	—65.4 (26)	16890	093	—70.7	11330	207	—62.2	11330	228	285	150
	Aswan	4335 (30)	607 (30)	—21,6 (30)	4880	570	—22.0	3570	666	—25.0	15913 (15)	113 (15)	—73.7 (15)	18100	076	—76,7	12300	196	—62.7	12215	197	272	132

N = The number of cases the element has been observed during the month.

Table B 3. (*cont'd.*)—**NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**

MERSA MATROUH (A) — DECEMBER 1973

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000—360°)																						Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	3	9	0	—	1	9	0	—	3	7	4	5	2	6	4	4	8	12	3	13	0	—	1	5	1	36	8
	1000	3	12	2	8	2	13	2	12	2	24	0	—	0	—	3	14	3	19	6	12	3	16	3	16	1	36	14
	850	2	22	5	16	3	9	1	4	0	—	2	16	1	8	3	19	4	16	5	17	2	10	2	24	0	30	16
	700	3	28	1	2	0	—	0	—	0	—	2	9	0	—	4	32	6	26	8	19	1	18	4	14	0	29	21
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	35	10	37	6	31	5	20	3	21	0	29	31
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	33	11	55	8	34	3	23	3	22	0	28	40
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	65	12	65	6	45	3	28	2	32	0	26	54
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	76	10	84	7	57	1	31	1	42	0	21	70
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	100	6	82	6	56	2	64	0	—	0	15	71
	200	0	6	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	100	6	67	2	70	0	—	0	14	81
	150	0	—	0	—	0	—	0	—	2	—	0	—	1	86	3	93	6	56	1	85	0	—	0	—	0	11	73
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	48	3	42	0	—	0	—	0	—	0	8	46
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	34	1	40	0	—	0	—	0	—	0	7	35
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	17	3	30	2	34	0	—	0	—	0	7	28
	50	0	—	0	—	0	—	0	—	0	—	0	—	1	19	1	26	3	34	1	34	0	—	0	—	0	6	30
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	52	2	22	1	35	0	—	0	—	0	4	26
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	29	0	—	0	—	0	2	29
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	0	—	0	—	0	1	32
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	6	9	6	10	0	—	3	9	1	10	0	—	2	8	2	9	1	25	2	21	4	14	3	10	0	30	12
	1000	3	9	1	10	2	9	2	14	1	12	2	16	0	—	2	10	2	18	4	22	5	17	4	14	0	28	14
	850	5	16	1	12	4	8	0	—	0	—	2	15	3	14	3	16	3	20	4	21	3	16	0	—	0	28	16
	700	2	23	0	—	1	26	0	—	1	5	0	—	2	14	4	20	5	35	5	20	3	19	6	23	0	29	23
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	30	9	39	8	27	2	26	7	25	0	29	31
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	37	16	47	3	35	4	26	3	25	0	29	36
	400	0	—	0	—	0	—	0	—	0	—	1	19	0	—	3	67	12	64	8	43	3	34	1	34	0	28	51
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	78	11	71	5	46	2	36	1	47	0	20	60
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	79	7	55	2	50	0	—	0	17	65
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	59	6	54	1	45	0	—	0	13	56
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	66	7	52	0	—	0	—	0	11	57
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	51	3	41	1	46	0	—	0	10	48
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	24	2	50	0	—	0	—	0	6	25
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	26	1	25	0	—	0	—	0	5	25
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	24	0	—	0	—	0	—	0	3	24
	40	0	—	0	—	0	—	0	—	0	—	1	8	0	—	1	20	0	—	0	—	0	—	0	—	0	2	14
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3. *(Cont.)* **—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**

HELWNA — DECEMBER 1973

Tiem	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360)°																								Number of Calm winds	Total Number of Observations (T N)	Mean Scalar wind Speed (Knots
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	4	4	15	10	3	6	0	—	3	4	0	—	0	—	0	—	0	—	2	7	1	10	1	6	2	31	7
	1000	3	5	12	17	9	14	0	—	2	6	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	27	13
	850	3	15	10	15	5	13	0	—	0	—	1	7	9	—	1	3	1	18	1	11	2	21	4	14	0	28	14
	700	3	19	6	24	0	—	0	—	0	—	0	—	0	—	0	—	1	17	11	28	2	15	5	19	0	28	23
	600	3	39	2	22	0	—	0	—	0	—	0	—	0	—	0	—	3	23	5	39	10	29	4	18	0	27	29
	500	5	33	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	18	12	47	6	40	2	16	0	27	38
	400	3	47	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	9	10	54	9	52	3	33	0	26	50
	300	1	49	0	—	0	—	0	—	0	—	6	—	0	—	0	—	1	9	6	65	8	67	4	39	0	20	57
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	95	9	78	4	51	0	18	77
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	76	9	65	1	74	0	14	69
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	71	4	62	3	75	0	10	64
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	44	3	63	2	72	0	8	58
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	44	5	59	0	—	0	7	55
	60	0	—	0	—	0	—	0	—	0	—	2	25	0	—	0	—	1	72	2	31	0	—	0	—	0	5	37
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	2	20	2	28	0	—	0	5	27
	40	0	—	0	—	0	—	6	—	0	—	0	—	0	—	0	—	0	—	1	19	3	22	0	—	0	4	21
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	22	2	34	0	—	0	3	30
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	65	1	36	0	2	50
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	10	9	10	11	0	—	0	—	0	—	0	—	1	6	0	—	1	3	4	5	0	—	4	7	1	31	8
	1000	7	10	10	15	2	10	0	—	0	—	0	—	0	—	0	—	1	3	2	6	1	10	2	7	0	25	11
	850	3	14	7	14	6	16	1	12	0	—	1	4	1	8	1	3	1	29	4	18	2	10	1	17	0	28	16
	700	4	26	6	20	0	—	0	—	0	—	0	—	1	9	0	—	3	18	7	33	4	18	3	15	0	28	23
	600	3	26	2	26	0	—	0	—	0	—	0	—	0	—	0	—	3	53	7	37	9	23	4	27	0	28	31
	500	2	42	1	21	0	—	0	—	0	—	0	—	0	—	0	—	2	33	10	48	6	34	4	37	0	25	41
	400	3	35	0	—	0	—	0	—	0	—	0	—	6	—	0	—	1	85	9	63	9	55	2	40	0	24	55
	300	1	61	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	75	6	83	4	46	0	19	71
	250	2	72	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	112	5	63	3	57	0	16	81
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	89	5	89	5	63	0	14	90
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	67	5	73	2	84	0	8	75
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	56	4	44	0	—	0	5	46
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	43	1	35	1	23	0	5	32
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	24	0	—	0	—	0	4	24
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	15	0	—	3	23	0	—	0	—	0	4	21
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	27	0	—	0	—	3	33	0	—	0	4	32
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	0	—	3	18	0	—	0	—	0	4	18
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	3	2	24	0	—	1	22	0	4	18
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

Table B 3.—(*contd.*) NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A) — DECEMBER 1973

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360°)																						Number of Calm winds	Total Number of Observations (T.N)	Mean Scaler wind speed (knots)
		345 / 014		015 / 643		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 T.U.	Surface	19	11	9	11	1	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	1	21	10
	1000	1	13	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	11
	850	7	14	7	15	7	14	3	16	0	—	2	12	0	—	0	—	1	2	1	9	2	25	1	10	0	31	14
	700	2	22	2	8	0	—	1	20	0	—	0	—	1	12	1	7	2	28	1	26	3	19	1	7	0	14	18
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	20	10	5	12	1	14	1	2	0	—	0	—	0	—	0	—	1	2	1	8	0	—	1	5	1	31	9
	1000	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	0	0
	850	5	11	5	9	6	14	5	6	1	5	2	10	0	—	-	—	1	5	1	12	3	11	1	14	0	30	10
	700	1	32	3	6	2	10	1	6	0	—	0	—	0	—	2	13	3	18	4	15	6	10	5	13	0	27	12
	600	1	40	0	—	0	—	0	—	0	—	0	—	0	—	2	6	4	29	13	19	5	18	1	7	0	26	20
	500	1	30	0	—	0	—	0	—	0	—	0	—	0	—	1	18	6	32	13	32	3	34	1	41	0	25	32
	400	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	40	13	49	2	48	1	4	0	25	43
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	74	17	62	5	55	0	—	0	24	61
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	67	17	73	4	60	0	—	0	23	70
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	18	73	3	78	0	—	0	21	74
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	33	14	66	0	—	0	—	0	17	64
	100	0	—	0	—	0	—	0	—	1	24	0	—	0	—	0	—	2	48	9	51	0	—	0	—	0	12	48
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	4	28	1	0	0	—	0	6	23
	60	0	—	0	—	1	18	0	—	0	—	0	—	0	—	0	—	1	15	1	10	1	11	0	—	0	4	14
	50	0	—	0	—	1	15	1	9	1	12	0	—	0	—	0	—	0	—	1	22	0	—	0	—	0	4	14
	40	0	—	0	—	1	12	1	10	1	29	1	27	0	—	0	—	0	—	0	—	0	—	0	—	0	4	20
	30	0	—	0	—	0	—	1	23	0	—	0	—	0	—	0	—	1	13	0	—	0	—	0	—	0	2	18
	20	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	0
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N=The number of cases the wind has been observed from the range of direction during the month

TN — The total number of cases the wind has been observed during the month

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — DECEMBER 1973

For the month as a whole the mean daily air temperature was rather normal and the mean daily relative humidity was markedly above normal. The total monthly rainfall was only 6.3 mm. against 29.5 mm. for normal.

The daily maximum air temperatures were rather normal apart from a short warm spell on the 14th and two light cold waves on the 9th and in the period (17 th-20th). The warms spell yielded the hirghest maximum air temperature for the month (24.0° C). The second cold wave yielded the lowest maximum air temperature (15.9° C) on the 17th and the lowest minimum air temperature (8.2°C) on the 20th. The minimum air temperatures were also rather normal most days of the month.

The highest maximum soil temperatures were lower than last December at all depths with departures between 0.5° C (at 5 cm.) and 2.0° C (at 50 cm.). The lowest minimum soil temperatures were higher than last December at all depths apart from 10 cm. where it was lower by 0.4° C ; the departures varied between 0.1° C (at 5 cm) and 1.2° C (at 20 cm.).

The mean daily actual sunshine duration was higher than normal by 0.6 hour. The mean daily wind speed at 1.5 met. was higher by 0.2 m./sec. than the coves ponding value of December 1972.

TAHRIR — DECEMBER 1973

For the month as a whole the mean daily air temperature was below normal, while the mean daily relative humidity was above normal. The month was rainless apart from light rain (0.2 mm.) on the 16 th, while the normal monthly rainfall is 8.2 mm.

The daily maximum air temperatures were rather normal, apart from a light cold wave in the period (16th — 18th) yielding the lowest maximum air tempature for the month (18.8° C). The daily minimum air temperatures were below normal the whole month apart from the 7th and 14th and the departures below normal were pronounced most of the second half of the month. The lowest minimum air temperature at 1.5 met, height for the month was 3.0°C reported on the 19th. The minimum air temperature at 5 cm. above grass was below 0°C on the 23rd when it fell to - 0.6°C.

The highest maximum soil temperatures were hgiher than last December at all depths with departures between 2.2°C (at 2 cm) and 0.4°C (at20 cm.). The lowest minimum soil temperatures were higher than last December at all depths apart from 5 cm. depth where it was lower by 0.2°C, departures varied between 0.4°C (at 2 cm.) and3.0°C (at 50 cm.).

The mean daily actual sunshine duration was higher than normal by 0.3 hour. The mean daily wind speed at 1.5 met. height and pan evoporationwere lower than normal by 0.5 m./sec. and 1.13 mm.

(BAHTIM — DECEMBER 1973)

For the month as a whole the mean daily air temperature was rather normal, and the mean daily relative humidity was above normal. The month was rainless apart from 0.3 m.m. of rain on the 16th, while the normal monthly rainfall is 4.6mm.

The daily maximum air temperatures were rather normal the whole month, apart from a light warm spell in the period (13th—15th) and a light cold wave in the period (16th-18th). The highest maximum air temperature for the month was 25.8°C reported on the 14th, and the lowest maximum air temperature was 17.5°C reported on the 17th. The daily minimum air temperatures were below normal the whole month apart from two short periods : (7th and 8th) and (13th-15th), and the departures below normal were pronounced most of the second half of the month. The lowest minimum air temperature (at 1.5 met height for the month was 1.3°C reported on the 23rd.

It is worthy of mention that the minimum air temperature at 5 cm. above dry soil and grass fell below 0.°C in 6 and 8 days respectively during this month. The minimum air temperatures below 0°C and their dates of occurence are given in the following :

Date	19	21	23	24	25	72
Min air temp. below 0°C at 5 cm above dry soil	-1.0	-0.7	-3.0	-3.0	-0.5	-0.5

Date	18	19	21	32	24	25	27	30
Min. air temp below 0°C at 5 cm above grars	-0.4	-1.0	-0.3	-2.1	-2.8	-0.5	-0.6	-0.

The highest maximum soil temperatures were higher than last December at all clepths with departures between 4.3°C (at 2 cm.) and 0.1°C (at 100 cm.). The lowest minimum soil temperatures were also higher than last December with departures between 3.6° C (at 2 cm) and 0.8° C (at 100 cm.).

The mean daily actual sunshine duration was higer than normal by 0.9 hour. The mean daily wind speed at 1.5 met. height and pan evaporation were lower than normal by 0.4 m. / sec. and 0.30 mm.

(KHARGA — DECEMBER 1973)

For the month as a whole the mean daily air temperature and relative humidity were slightly above normal.

The daily maximum air temperatures were slightly below normal apart from two warm spells in the periods : (6*th*, 7*th*) and (13*th*-15*th*). The highest maximum air temperature for the month was 32.0°C reported on the 15*th* ; and the lowest maximum air temperature was 19.2°C reported on the 18th. The daily minimum air temperatures were below normal in the periods : (1*st*-8*th*), (18*th*-21*st*) and (23*rd*-25*th*) ; and above normal in the rest of the month. The lowest minimum air temperature for the month was 1.2°C reported on the 24*th*. It it is worthy of mention that the minimum air temperature at 5 cm. above soil was below 0°C on the 24*th* and 25*th* when it fell to —1.2°C and —1.1°C respectively.

The highest maximum soil temperatures were markedly higher than last December at depths between 2 and 20 cm with departures between 9.4°C (at 2 cm) and 2.8°C (at 20 cm) ; and lower than last December at 50 and 100 cm. depths by 0.8°C and 0.9°C respectively. The lowest minimum soil temperatures were higher than last December at 2, 5, 100 cm. depths with departures between 0.8° and 0.2°C ; lower at 10 and 20 sm. depths by 2.0°C and 0.6°C respectively, and the same as last December at 50 cm. depth.

The mean daily wind speed at 1.5 met., actual sunshine duration and pan evaporation were higher than normal by 0.3 m./sec., 0.5 hour and 0.42 mm.respectively.

Table C 1. — AIR TEMPERATURE AT 1½ METRES ABOVE GROUND

DECEMBER — 1973

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	—5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Mersa Matruh. .	19.5	10.7	15.1	13.3	16.8	24	24	24	23.2	11.6	1.3	0.0	0.0	0.0	0.0	0.0
Tahrir	22.5	7.0	13.6	10.2	17.0	24	24	23.4	17.1	9.9	2.6	0.0	0.0	0.0	0.0	0.0
Bahtim	20.9	5.6	12.8	9.6	15.9	24	24	22.2	15.3	8.4	1.9	0.1	0.0	0.0	0.0	0.0
Kharga . . .	23.8	7.5	16.2	13.2	19.1	24	24	23.4	20.6	13.7	6.0	1.0	0.1	0.0	0.0	0.0

Table C 2 — EXTREME VALUES OF AIR TEMPERATURE AT 1½ METRES ABOVE GROUND, ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER DIFFERENT FIELDS

DECEMBER — 1973

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Mersa Matruh. . . .	21.0	14	15.9	17	11.9	29	8.2	20	4.4	4	—	—
Tahrir	25.6	14	18.8	16,17	11.4	7	3.0	19	0.6	19	—0.6	23
Bahtim	25.8	14	17.5	17	10.2	7	1.3	23	—3.0	23,24	—2.8	24
Kharga	32.0	15	19.2	18	12.4	14	1.2	24	—1.2	24	—	—

Table C 3.—SOLAR+SKY RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL

DECEMBER — 1973

STATION	(Solar+Sky) Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day	Date
Mersa Matruh	201.8	222.3	313.9	71	81	69	48	11	10.4	11.4	15.1	13	5.9	19	3.0	3.18	6.3	3.8	16
Tahrir . . .	265.4	236.5	316.8	75	76	51	25	15	8.8	9.2	13.0	13	4.9	15	2.7	3.03	0.2	0.2	16
Bahtim . . .	272.9	227.3	317.4	74	76	49	33	15	8.2	8.7	12.1	4,11	4.4	24	3.3	3.05	0.3	0.3	16
Kharga . .	306.1	309.5	329.2	94	48	29	16	15,16	6.2	5.9	9.1	29	3.5	7,16	8.1	6.95	0.0	0.0	—

Table C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms) IN DIFFERENT FIELDS

DECEMBER — 1973

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
M. Matruh	H	21.3	20.3	18.3	16.6	17.6	19.7	22.5	—	—	—	—	—	—	—	—	—
	L	8.6	8.9	10.2	12.5	15.8	18.0	20.4	—	—	—	—	—	—	—	—	—
Tahrir	H	26.1	24.2	21.5	19.1	19.1	21.2	23.9	25.1	19.8	18.6	18.2	17.0	17.4	19.0	21.4	—
	L	5.6	6.2	8.5	12.4	16.0	18.4	21.3	23.2	8.5	9.0	9.4	11.5	14.0	15.6	18.3	—
Bahtim	H	30.2	24.5	21.6	20.4	22.4	24.4	26.5	26.4	18.1	16.9	16.0	15.8	17.8	19.9	22.1	—
	L	4.6	5.6	11.0	15.7	19.4	21.6	24.7	25.6	5.6	7.4	9.7	11.5	14.6	17.1	20.4	—
Kharga	H	40.2	34.0	28.3	24.0	23.4	26.5	29.0	29.8	—	—	—	—	—	—	—	—
	L	5.1	6.1	9.0	15.2	20.2	23.9	27.2	28.6	—	—	—	—	—	—	—	—

Table C 5.— SRUFAC WIND

DECEMBER — 1973

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres							Max, Gust (knots) at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 konts	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	value knots	Date
M. Matruh . .	3.1	2.4	3.7	27	15	7	3	2	0	0	42	17
Tahrir	1.5	0.9	2.1	30	16	6	0	0	0	0	29	61,17
Bahtim. . . .	1.6	0.8	2.3	26	13	3	0	0	0	0	30	25
Kharga . . .	3.0	2.0	4.0	31	24	11	0	0	0	0	28	9

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