THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 19 NUMBER 1

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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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 several 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.

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 Repot 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.

Chairman (A. F .HASAN)
Board of Directors

Cairo, March 1978

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 Mersa Matruh, Tahrir, Bahitm, and Kharga. The observation fields at Mersa Matruh and Kharga are considered for the moment as dry and bare fields. At Bahtim and Tahrir there are grass fields covered with Libia in addition to the dry and bare fields.

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. approximately.	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,

—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. 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. 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 beside monthly mean values in a separate column.

Relative Humidity :

The relative humidity at a certain hour is derived from the values of the dry and wet bulb temperatures using Jelinek's Psychrometer Tables (Leipzig 1911). The mean monthly relative humidity is the arithmetic mean over the month of its daily hourly values,. 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 &18UT)are compted from their cor responding 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 0600U.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 maxi mum 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, thunders torm, 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 28/.

—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 W. M. O, 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 occrurences 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 range of direction during the month irrespective of their speed.

UPPER AIR DATA

TABLE B1.—Monthly Means and Monthly Absolute Higher & Lower Values of Altitude, air Temperature & Dew point at Standared and Selected Pressure Surface.

The routine upper air observations are taken at 0000 and 1200 UT, a separate table of the 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 theses surfaces are given in the table against each element under column (N).

The monthly mean values of the altitude, temperature and dew point at each of these pressure surfaces are the arithmetical means of the corresponding daily values overthe number of cases (N) indicated against each element. Whenever t 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 without 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 or 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 lowst values of the surface air temperature observed during the month.

—The monthly mean, the highest and the lowset 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 vin ls 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 cise of table Bl, 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 for the hour of observation indicated the followng data :

—The number of cases (N) the wind has been observed from the specifed 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 direciion 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 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 and average values of specified elements that are of great interest to agriculturists as well as to agrometeorologists. For recently operated stations departure from last year values appears 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 mean values. The mean air temperature of a day is the mean of the eight values of the dry bulb temperature 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 heir 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 Bright Sunshine duration, & 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 mean values for the month

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 are the arithmetic means 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 lest 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 refers 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 Ha (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—24'00)	Upper airobservations P (Pilot Ballon) W (Radio Wind) R (Radio Sonde) 00	06	12	18	Remarks
Mediterranean	Salum	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	146.68	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	71.68	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	—	
	Baharlya	420	28 23	28 54	123.0	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	459	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 1976

Cold winter weather - subnormal rainfall

PRESSURE DISTRIBUTION

Five depressions passed through East Mediterranean on the 5th, 17th, 20th, 23rd & 29th.

High pressures established in their rears

The mean pressure over Egypt was slightly below normal in general.

SURFACE WIND

Prevailing winds over the northern parts were in general SW ly to NW ly light to moderate, but fresh to strong at times during several days .

In south winds were N ly & NW ly light to moderate, freshened during few days .

TEMPERATURE

Four cold waves prevaild most days of the the third was the most pronounced and and prevailed from the 17th to the 24th.

Maximum air temperatures showed mostly, moderate subnormal departures from normal.

Minimum air temperatures were mostly above normal in the Mediterranean district, and below normal atherwise; departures from normal were moderate in general .

The highest and lowest maximum air temperatures reported were respectively 30.0°C at Kom Ombo on the 16th and 12.4°C at Ras El Teen on the 21st.

The highest and lowest minimum air temperatures repported were réspéctivèly 18.O°C at° Ras Binas on the 18th — 3.2 °C at Dakhla on the 20th

PRECIPITATION

light rain fell over the northern parts during several days. Rain was heavy during few days over some places in the Mediterranean district.

The monthly rainfall amounts were subnormal .

The maximum daily and monthly rainfall amounts were respectively 17.I mm at Rosetta on the 18th and 64.4 mm at the same station.

OTHER WEATHER PHENOMENA

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

Rising sand was reported during some days in scattered places .

Chairman (A. F. HASSAN)

Board of Directors,

Cairo, March 1977

TABLE AI—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

JANUARY — 1976

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	1016.7	—0.5	18.1	—0.7	9.4	0.0	13.8	13.3	—0.3	9.6	—0.4	61	+3	—	—	—	7.1
Mersa Matruh. (A)	1017.4	+0.1	17.0	—1.1	8.2	—0.1	12.6	12.4	—0.4	9.3	—0.4	67	+2	211.2	320.2	66	4.6
Alexandria (A)	1017.6	—0.1	17.8	—0.7	8.8	—0.3	13.3	13.0	—0.6	10.1	—0.8	68	—2	199.2	321.8	62	3.2
Port Said. (A)	1016.4	—0.9	19.3	+1.2	10.0	—1.3	14.6	13.8	—0.5	10.6	—1.2	67	—5	222.9	321.8	69	3.3
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1017.1	—0.4	18.8	—0.8	8.1	—0.2	12.4	11.6	—0.9	8.9	—0.9	70	+2	228.3	322.7	71	3.0
Cairo. (A)	1017.7	—0.2	18.6	—0.5	8.7	—0.1	13.6	13.3	—0.4	9.2	—0.7	56	—2	—	—	—	9.0
Fayoum.	—	—	19.6	—0.8	4.7	—1.5	12.2	11.8	—1.0	8.6	—0.8	65	+ 5	—	—	—	3.1
Minya. (A)	1018.5	0.0	19.6	—1.0	3.1	—0.8	11.4	11.1	—0.7	7.6	—0.5	62	+ 5	256.9	328.1	78	4.7
Assyout. (A)	1018.7	+0.3	18.2	—2.5	3.5	—2.1	10.8	10.7	—2.7	6.6	—1.8	54	+ 7	—	—	—	5.9
Luxor. (A)	1017.0	—0.2	22.7	—0.3	5.0	—0.4	13.8	13.3	—0.8	8.8	—0.6	51	+ 3	—	—	—	3.7
Aswan. (A)	1016.9	—0.2	21.6	—2.2	8.2	+0.2	14.9	14.5	—1.1	8.3	—0.6	39	+ 5	232.9	337.0	81	10.7
Siwa	1018.1	—0.3	18.7	—1.0	6.6	+1.7	12.6	12.4	+0.5	7.2	—0.7	44	— 8	234.6	326.1	72	6.2
Bahariya.	1018.4	—0.2	18.6	—1.4	4.6	—0.3	11.6	11.6	—1.0	7.2	—0.6	52	+ 5	—	—	—	5.7
Farafra.	1019.8	—0.5	19.1	—1.5	3.5	—0.6	11.3	11.3	—1.0	6.8	+0.2	51	+ 8	—	—	—	5.5
Dakhla.	1020.1	+1.6	19.7	—1.7	1.2	—3.0	10.4	10.6	—1.4	5.6	—1.6	41	+ 5	—	—	—	6.1
Kharga.	1018.1	+0.2	20.7	—1.6	6.0	+0.2	13.1	13.2	—0.7	7.7	—0.3	48	+ 5	290.4	333.7	87	5.2
Tor.																	
Hurghada.	1016.4	—0.2	20.9	0.0	9.8	+0.2	15.4	15.2	—0.6	10.1	—0.8	48	— 3	160.2	339.5	48	9.1
Quseir	1016.7	0.0	21.3	—1.2	13.7	—0.1	17.2	17.1	—1.0	11.6	—1.0	47	— 1	—	—	—	6.7

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURE

JANUARY — 1976

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	22.0	27	13.2	26	0	0	0	0	0	8.3	—	12.4	10,15	5.2	21	17	0	0	0
Mersa Matruh (A)	19.8	25	13.2	21	0	0	0	0	0	6.5	—	12.2	9	5.0	19,22	25	0	0	0
Alexandria . (A)	20.3	27	13.0	21	0	0	0	0	0	6.7	—	12.4	12	4.8	27	19	1	0	0
Port said . . (A)	25.2	28	17.0	18,23	1	0	0	0	0	9.7	—	14.6	9	7.2	21,22	13	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	23.3	28	15.2	6	0	0	0	0	0	—	—	11.6	16	2.3	25	30	9	0	0
Cairo . . . (A)	24.2	28	15.1	6	0	0	0	0	0	—	—	16.9	16	5.2	7	2	0	0	0
Fayoum	23.6	28	15.4	20	0	0	0	0	0	0.9	—	10.0	16	1.4	26	30	18	0	0
Minya . . . (A)	26.2	28	17.0	7	1	0	0	0	0	0.4	—	8.4	16	0.3	30	31	27	0	0
Assyout . . (A)	26.3	28	14.6	22	1	0	0	0	0	2.4	—	10.0	16	—0.7	19	30	24	0	2
Luxor . . . (A)	28.4	28	18.0	22	5	0	0	0	0	0.4	—	11.4	17	1.4	8	30	15	0	0
Aswan . . . (A)	29.2	28	14.5	22	4	0	0	0	0	—	—	12.6	29	4.8	20	24	1	0	0
Siwa	31.4	27	12.9	21	0	0	0	0	0	5.5	—	11.8	16	0.6	30	28	6	0	0
Bahariya	23.0	15	15.0	20	0	0	0	0	0	4.0	—	12.0	16	1.0	27	30	18	0	0
Farafra	25.0	15	14.8	21	0	0	0	0	0	2.0	—	10.4	16	—0.5	27	30	25	1	0
Dakhla	27.0	15	15.4	21	1	0	0	0	0	1.1	—	7.7	16	—3.2	20	31	29	9	0
Kharga	28.6	28	17.2	7	2	0	0	0	0	2.7	—	10.4	29	2.6	24	30	12	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . .	24.2	28	18.6	21	0	0	0	0	0	—	—	12.2	9	6.7	21	14	0	0	0
Quseir	24.2	9	19.2	20	0	0	0	0	0	11.0	—	17.5	17	10.3	20	0	0	0	0

Table A 3. —SKY COVER AND RAINFALL

JANUARY 1976

Station	Mean Sky Cover oct.					Rain Fall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Toal Amount	Dev. Fraom Normal	Max. Fall in one Day		Number of Days with Amount of Rain						
								Amount	Date	<0.1	≥0.1	≥1.0	≥5.0		≥25	50
Sallum	3.9	3.5	4.3	3.8	3.8	17.0	— 1.8	6.3	8	0	9	3	1	0	0	0
Mersa Matruh . . (A)	2·1	3.6	3.5	3.4	3.3	28.0	— 3.7	15.0	8	1	8	5	2	1	0	0
Alexandria . . . (A)	4.0	4.2	5.0	8.9	4.3	39.1	—13.5	9.6	11	0	14	8	3	0	0	0
Port Said . . . . (A)	1.8	2.3	2.1	1.9	2.1	0.5	—11.9	0.5	5	0	2	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—		—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1.2	3.1	3.2	1.9	2.2	1.3	— 9.4	0.7	5	0	2	0	0	0	0	0
Cairo . . . . . .(A)	1.5	2.2	3.1	2.0	2.2	Tr.	— 5.2	Tr.	5,15,23	3	0	0	0	0	0	0
Fayoum	—	1.9	2.7	1.5	—	Tr.	— 0.9	Tr.	15	1	0	0	0	0	0	0
Minya	1.6	2.1	2.3	1.3	1.7	0 0	— 0.3	0.0	—	0	0	0	0	0	0	0
Assyout . . . . . (A)	0.2	1.0	1.1	0.6	0.6	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Luxor . . . . . (A)	1.0	2.2	2.2	1.6	1.6	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Aswan . . . . . (A)	1.1	2.0	1.9	1.5	1.7	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	4.5	3.0	3.5	3.2	3.4	1.7	+ 0.7	0.9	20	0	2	0	0	0	0	0
Bahariya	1.0	1.7	2.2	1.2	1.5	Tr.	— 0.2	Tr.	8;15	2	0	0	0	0	0	0
Farafra	—	2.0	2.2	1.5	—	Tr.	— 0.6	Tr.	8	1	0	0	0	0	0	0
Dakhla	0.2	1.2	1.1	0.7	0.7	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Kha.ga	0.5	1.3	1.6	0.6	1.0	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.9	2.4	1.9	1.5	1.7	0.0	- Tr.	0.0	—	0	0	0	0	0	0	0
Quseir	0.7	2.8	2.4	1.3	1.8	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0

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

JANUARY — 1976

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	9	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Mersa Matruh (A)	8	0	0	0	0	0	0	0	0	0	3	2	0	7	2
Alexandria (A)	14	0	0	0	0	0	1	1	0	0	4	1	0	2	5
Port Said (A)	2	0	0	0	0	0	0	0	1	0	4	0	0	15	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	2	0	0	0	0	0	3	0	1	0	1	0	0	14	1
Cairo (A)	0	0	0	0	0	0	7	0	12	1	13	0	0	17	0
Fayoum (A)	0	0	0	0	0	0	0	1	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	20	1	6	0	1	0	0	19	1
Assyout (A)	0	0	0	0	0	0	0	0	0	0	0	1	0	28	0
Luxor (A)	0	0	0	0	0	0	0	0	18	0	10	0	0	21	2
Aswan (A)	0	0	0	0	0	0	0	0	0	0	6	0	0	22	1
														6	
														6	
Siwa	2	0	0	0	0	0	0	0	1	0	0	0	0		3
Bahariya	0	0	0	0	0	0	0	0	0	0	4	0	0	20	0
Farafra	0	0	0	0	0	0	0	0	0	2	4	1	0	—	—
Dakhla	0	0	0	0	0	0	0	0	1	0	2	0	0	29	0
Kharga	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	2	0	5	0	0	21	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	19	1

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

JANUARY — 1976

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	
Siiseu	3	1	0	1—10	9	11	25	14	11	18	26	22	40	77	103	64	420
				11—27	1	4	0	1	0	0	2	10	44	157	82	18	319
				28—47	0	0	0	0	0	0	0	0	0	1	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**10**	**15**	**25**	**15**	**11**	**18**	**28**	**32**	**84**	**235**	**185**	**83**	**740**
MersaMatrah . . (A)	14	0	0	1—10	13	14	18	13	16	46	49	70	111	42	24	28	444
				11—27	12	0	1	1	5	12	6	71	108	39	24	4	283
				28—47	0	0	0	0	0	0	0	2	1	0	0	0	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**25**	**14**	**19**	**14**	**21**	**58**	**55**	**143**	**220**	**81**	**48**	**32**	**730**
Alexandria . . . (A)	13	0	0	1—10	29	39	25	18	38	36	54	96	32	23	36	60	486
				11—27	4	13	1	0	0	0	3	91	77	24	13	18	244
				28—47	0	0	0	0	0	0	0	1	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**33**	**52**	**26**	**18**	**38**	**36**	**57**	**188**	**109**	**47**	**49**	**78**	**731**
Tanta . . . . . (A)	43	0	12	1—10	40	42	35	17	34	28	85	59	50	30	49	29	498
				11—27	6	13	4	4	1	29	50	53	21	6	1	2	190
				28—47	0	0	0	0	0	0	0	1	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**46**	**55**	**39**	**21**	**35**	**57**	**135**	**113**	**71**	**36**	**50**	**31**	**689**
Cairo . . . . . (A)	10	2	0	1—10	134	78	16	12	7	29	68	121	111	47	22	53	698
				11—27	0	4	0	0	0	0	0	12	16	1	0	1	34
				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	**134**	**82**	**16**	**12**	**7**	**29**	**68**	**133**	**127**	**48**	**22**	**54**	**732**
Fayasm.	36	1	0	1—10	174	69	2	0	0	86	41	24	34	24	41	125	620
				11—27	21	25	0	0	0	5	1	2	3	16	6	8	87
				28—54	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	**195**	**94**	**2**	**0**	**0**	**91**	**42**	**26**	**37**	**40**	**47**	**133**	**707**
Minya . . . . . (A)	13	3	0	1—10	66	37	3	2	4	10	34	45	50	59	140	167	617
				11—27	37	13	0	0	0	1	6	2	2	14	22	14	111
				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**	**50**	**3**	**2**	**4**	**11**	**40**	**47**	**52**	**73**	**162**	**181**	**728**
Asyout . . . . . (A)	106	0	0	1—10	84	51	36	22	18	10	118	1	32	47	66	64	620
				11—27	3	9	0	0	0	0	0	0	0	0	1	5	18
				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**	**60**	**36**	**22**	**18**	**10**	**118**	**71**	**33**	**47**	**67**	**69**	**638**

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

JANUARY 1976

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												
					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
Louxor	8	0	0	1—10	307	98	6	2	0	8	7	5	3	11	30	85	562
				11—27	121	18	0	0	0	0	0	0	0	0	11	24	174
				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	**428**	**116**	**6**	**2**	**0**	**8**	**7**	**5**	**3**	**11**	**41**	**109**	**736**
Aswan	42	16	0	1—10	54	16	15	36	57	74	61	16	38	87	47	51	552
				11—27	21	2	0	1	13	5	16	4	14	33	15	10	134
				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	**75**	**18**	**15**	**37**	**70**	**79**	**77**	**20**	**52**	**120**	**62**	**61**	**686**
Siwa	13	9	0	1—10	72	28	14	17	22	21	16	26	57	116	158	143	690
				11—27	5	0	0	0	0	0	0	0	1	0	18	8	32
				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	**77**	**28**	**14**	**17**	**22**	**21**	**16**	**26**	**58**	**116**	**176**	**151**	**722**
Dakhla	5	2	0	1—10	237	111	34	14	11	6	14	12	16	43	57	122	677
				11—27	38	20	0	0	0	0	0	0	0	0	0	2	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	**275**	**131**	**34**	**14**	**11**	**6**	**14**	**12**	**16**	**43**	**57**	**124**	**737**
Kharga	4	0	0	1—10	47	16	12	6	7	6	6	7	7	60	230	52	456
				11—27	47	0	0	0	2	0	0	0	1	8	112	114	284
				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	**94**	**16**	**12**	**6**	**9**	**6**	**6**	**7**	**8**	**68**	**342**	**166**	**740**
Hurghada	0	0	0	1—10	74	18	15	11	5	5	2	10	32	246	137	26	581
				11—27	64	0	0	0	0	2	0	0	0	1	30	66	163
				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	**138**	**18**	**15**	**11**	**5**	**7**	**2**	**10**	**32**	**247**	**167**	**92**	**744**
Quseir	0	0	0	1—10	74	18	15	11	5	5	2	10	32	245	134	26	577
				11—27	80	0	0	0	0	2	0	0	0	1	27	56	166
				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	**154**	**18**	**15**	**11**	**5**	**7**	**2**	**10**	**32**	**246**	**161**	**83**	**744**

UPPER AIR CLIMATOLOGICAL DATA

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

JANUARY — 1976

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	31	*1014mb.	*1021mb	*1005mb.	31	11.2	14.2	9.0	31	5.9
	1000	31	148	202	68	31	11.3	15.5	8.2	31	5.3
	850	31	1488	1560	1409	31	3.5	11.7	0.2	31	— 4.4
	700	31	3042	3106	2938	31	— 3.6	— 0.1	—11.1	31	—18.9
	600	31	4247	4348	4107	31	—11.0	— 5.1	—18.5	31	—24.8
	500	31	5628	5880	5438	31	—20.7	— 8.5	—28.9	31	—33.1
	400	31	7234	7379	7021	31	—32.4	—25.5	—37.7	31	—43.6
	300	31	9209	9393	8975	31	—44.9	—35.0	—51.7	30	—56.6
	250	30	10407	10601	10150	30	—51.4	—43.4	—55.9	30	—65.7
	200	30	11843	12031	11590	30	—54.8	—44.9	—61.1	26	—65.4
	150	29	13667	13857	13440	29	—58.0	—54.0	—63.8	20	—67.8
	100	23	16187	16355	15990	23	—63.5	—56.6	—70.9	—	—
	70	8	18357	18519	18245	8	—66.0	—56.8	—74.1	—	—
	60	4	19415	19500	19320	4	—60.9	—58.0	—64.0	—	—
	50	4	20518	20603	20425	4	—58.3	—57.7	—59.2	—	—
	40	4	21972	22100	21880	4	—55.9	—55.0	—56.6	—	—
	30	3	23709	23852	23668	3	—54.2	—54.0	—54.5	—	—
	20	3	26391	26462	26294	3	—51.7	—50.8	—52.6	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	30	*1001mb.	*1009mb.	*994mb.	30	9.9	17.8	5.4	30	2.3
	1000	29	151	218	86	20	10.0	12.2	7.4	20	3.3
	850	30	1489	1556	1438	30	3.8	14.0	— 2.5	30	— 5.9
	700	30	3049	3114	2949	30	— 2.5	5.2	—10.1	30	—18.3
	600	30	4295	4370	4123	30	— 9.4	— 0.5	—17.5	30	—24.1
	500	30	5644	5749	5499	30	—18.7	—11.4	—24.9	30	—31.4
	400	30	7272	7417	7073	30	—29.7	—23.9	—33.6	30	—40.8
	300	30	9208	9497	9030	30	—43.7	—37.1	—50.0	30	—53.7
	250	30	10472	10658	10220	30	—50.4	—42.1	—55.6	30	—60.0
	200	30	11915	12129	11652	30	—54.9	—46.5	—61.9	28	—64.2
	150	29	13736	13970	13457	29	—58.9	—53.0	—62.8	19	—63.7
	100	19	16233	16441	15992	19	—65.5	—58.5	—72.7	—	—
	70	12	18378	18522	18209	12	—65.8	—59.6	—70.9	—	—
	60	8	19372	19760	18980	8	—64.7	—59.9	—69.4	—	—
	50	8	20457	20582	20312	8	—61.6	—57.1	—67.8	—	—
	40	6	21938	22020	21960	6	—59.7	—56.5	—65.7	—	—
	30	6	23668	23776	23597	6	—57.1	—53.8	—62.9	—	—
	20	3	26232	26880	26126	3	—55.3	—53.7	—58.1	—	—
	10	1	30838	—	—	1	—51.9	—	—	—	—
Aswan (A) 0000 U.T.	Surface . .	31	*994m.b.	*1000m.b.	989m.b.	31	10.7	19.9	7.2	31	—0.4
	1000 . .	30	148	193	100	1	10.2	—	—	1	0.8
	850 . .	30	1508	1545	1476	30	10.9	17.1	3.8	30	—7.6
	700 . .	30	3112	3169	3034	30	5.0	8.4	1.3	30	—12.6
	600 . .	30	4351	4421	4299	30	— 3.3	0.6	— 5.2	30	—16.7
	500 . .	30	5770	5854	5711	30	—12.9	— 9.8	—16.5	29	—24.5
	400 . .	28	7436	7534	7356	28	—24.5	—19.8	—27.1	25	—33.9
	300 . .	28	9470	9564	9378	28	—39.4	—32.8	—43.4	28	—47.7
	250 . .	28	10699	10794	10608	27	—46.4	—36.5	—51.0	27	—52.8
	200 . .	25	12151	12249	12054	24	—54.7	—48.7	—59.8	23	—63.2
	150 . .	22	13933	14074	13751	22	—64.4	—56.9	—69.6	3	—67.0
	100 . .	12	16365	16447	16276	12	—74.4	—70.3	—80.7	—	—
	70 . .	8	18443	18505	18348	8	—70.9	—63.5	—73.6	—	—
	60 . .	6	19413	19470	19300	6	—66.8	—59.8	—72.0	—	—
	50 . .	6	20486	20555	20358	6	—62.2	—56.0	—66.0	—	—
	40 . .	3	21963	22040	21900	3	—60.4	—59.7	—61.9	—	—
	30 . .	3	23670	23755	23656	3	—58.1	—58.0	—58.2	—	—
	20 .	3	26256	26341	26183	3	—53.1	—52.0	—53.7	—	—
	10 . .	—	—	—	—	—	—	—	—	—	—

N = The Number of casses the element has been observed during the month.

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

UPPER AIR CLIMATOLOGICAL DATA

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

JANUARY — 1976

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Marsa Matruh (A) 1200 U.T.	Surface . . .	31	1014	* 1020	* 1003	31	15 6	17.8	5.0	31	3.8
	1000 . . .	30	147	195	54	30	14 6	17.0	11.4	30	3.2
	850 . . .	30	1490	1546	1299	30	11.1	13.6	1 2	30	—8.7
	700 . . .	29	3051	3106	9264	29	— 3.5	0.4	— 6.0	29	—22.9
	600 . . .	29	4257	4321	4138	29	— 9.9	— 3.5	—18.0	29	—30.7
	500 . . .	29	5638	5717	5500	29	—19.3	—10.3	— 27.9	29	—38.9
	400 . . .	29	7261	7396	7060	29	—30.8	—23.1	—36.3	29	—48.3
	300 . . .	29	9244	9391	9030	29	—44.5	—38.3	—50.5	29	—60.7
	250 . .	29	10446	10619	10212	29	—50.8	—37.2	—55.7	29	—66.2
	200 . . .	29	11887	12118	11644	29	—54.1	—39.8	—60.7	24	—68.2
	150 . . .	27	13714	14027	13484	27	—56.8	—52.9	—63 3	16	—71.0
	100 . . .	22	16248	16549	16054	22	—62.2	—54 2	—70.6	—	—
	70 . . .	9	18495	18717	18384	9	—61.8	—54 5	—66.6	—	—
	60 . . .	2	19390	19430	19350	2	—60.8	—55.7	—65.8	—	—
	50 . . .	2	20577	20527	20427	2	—59.5	—53.5	—65.2	—	—
	40 . . .	—	—	—	—	—	—	—	—	—	—
	30 . . .	—	—	—	—	—	—	—	—	—	—
	20 . . .	—	—	—	—	—	—	—	—	—	—
	10 . . .	—	—	—	—	—	—		—	—	—
Helwan 1200 U.T.	Surface . . .	29	1000 m.b.	* 1005 m.b.	992m.b.	29	17.2	22.1	12.8	29	2·3
	1000 . . .	29	138	177	72	17	16·5	18.2	13.6	16	2.0
	850 . . .	29	1492	1536	1441	29	5.0	14.1	0.0	29	— 5.1
	700 . . .	29	3060	3126	2987	29	— 1.0	4.5	—10.5	29	—18.9
	600 . . .	29	4275	4360	4139	29	— 8.2	— 1.7	—18 0	29	—24.9
	500 . . .	28	5665	5772	5501	28	—17.0	— 9.8	—23.6	28	—32.7
	400 . . .	28	7305	7440	7136	28	—28.2	—20.8	—33.1	28	—41.1
	300 . . .	28	9309	9498	9105	28	—41.7	—35.0	—47.0	28	—53 4
	250 . . .	27	10527	10707	10297	27	—48.3	—39.2	—52.5	27	—57.1
	200 . . .	27	11982	12160	11732	27	—52.1	—42.0	—56.6	27	—63.0
	150 . . .	26	13838	14026	13582	26	—55.3	—49.9	—60.9	25	—65.9
	100 . . .	18	16411	16550	16155	18	—60 1	—54.2	—69.5	4	—66.8
	70 . . .	11	18646	18728	18405	11	—59.6	—53.3	—68.5	—	—
	60 . . .	6	19622	19720	19390	6	—57.9	—54.8	—59.0	—	—
	50 . . .	6	20757	20874	20509	6	—55.1	—51.2	—57.6	—	—
	40 . . .	3	22267	22410	22050	3	—50.8	—47.2	—53.4	—	—
	30 . . .	2	24199	24262	24136	2	—43.6	—42.7	—44.6	—	—
	20 . . .	—	—	—	—	—	—	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Aswan (A) 1200 U.T.	Surface	31	* 994mb.	* 1000mb.	* 988mb.	31	20.8	28.0	13.6	31	2.4
	1000	30	133	176	87	—	—	—	—	—	—
	850	30	1512	1552	1478	30	12.3	19.4	4.0	29	— 9.1
	700	30	3123	3166	3063	30	5.9	11.5	3.1	29	—15.8
	600	29	4369	4436	4302	29	— 1.5	4.8	— 5.7	28	—20.4
	500	29	5795	5893	5718	29	—11.0	— 7.0	—13.9	28	—27.6
	400	29	7470	7596	7375	29	—23.3	—19.6	—28.0	28	—38.3
	300	28	9515	9662	9405	28	—38.1	—33.4	—42.1	27	—52.0
	250	27	10746	10907	10680	27	—46.0	—39.6	—50.0	26	—58.9
	200	26	12205	12388	12070	26	—54.4	—48.5	—59.2	25	—66.2
	150	26	14012	14227	13863	26	—62.6	—56.8	—67.2	5	—70.0
	100	23	16455	16672	16334	23	—71.7	—66.0	—76.6	—	—
	70	17	185.4	18760	18481	17	—71.1	—62.8	—78.2	—	—
	60	14	19544	19860	19450	14	—66.1	—61.4	—70.9	—	—
	50	14	20587	20769	20551	14	—62.1	—58.5	—65.1	—	—
	40	9	22091	22250	22020	9	—58.1	—56.9	—59.5	—	—
	30	9	23823	23982	23721	9	—53.9	—51.9	—56.3	—	—
	20	4	26501	26636	26452	4	—49.2	—47.9	—53.5	—	—
	10	1	31090	—	—	1	—39.9	—	—	—	

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

* The 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

JANUARY— 1976

	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	2145 (31)	787 (31)	— 8.8 (31)	3430	576	—30.4	1100	892	—1.5	11002 (26)	233 (26)	—55.0 (26)	12920	169	—63,8	8770	318	—47,4	2015	—	240	65
	Helwan	2388 (29)	766 (29)	—11.2 (29)	4260	604	—22.6	1200	879	—4.6	12330 (25)	195 (25)	—56.7 (25)	15940	104	—72.6	10150	262	—45.5	11470	209	300	180
	Aswan	3855 (30)	636 (30)	—14.9 (30)	4480	594	—12.3	3380	676	—25.9	16293 (7)	102 (7)	—73.9 (7)	17160	88	—73.0	15160	122	—62,4	1860	—	235	41
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh	1471 (29)	764 (29)	—19.1 (29)	3700	646	—28.0	1440	850	—14.6	10719 (25)	243 (25)	—54.5 (25)	12580	177	—62,5	7900	365	—38,1	9885	279	245	200
	Helwan	2704 (28)	746 (28)	—14.3 (28)	4100	618	—21.5	1420	858	—1.4	11286 (24)	228 (24)	—52.7 (24)	14820	130	—58.1	9530	290	—47.4	11090	232	295	166
	Aswan	4036 (30)	626 (30)	—18.8 (30)	5000	560	—20.2	3500	670	—22.1	16062 (13)	108 (13)	—72.0 (13)	17680	81	—75,4	14370	140	—64.1	12610	187	260	150

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) — JANUARY 1976

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360°)																								Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar speedwind (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	1	18	0	—	1	5	1	2	0	—	3	8	5	11	5	10	13	10	1	6	0	—	1	5	0	31	10
	1000	0	—	0	—	0	—	0	—	1	9	1	18	2	21	9	14	2	21	0	—	0	—	0	—	0	15	16
	850	0	—	0	—	0	—	0	—	0	—	1	2	2	27	2	28	10	22	0	—	0	—	0	—	0	15	22
	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	2	4	2	4	0	—	0	—	1	7	2	8	2	8	1	21	6	19	5	22	6	14	4	9	0	31	14
	1000	0	—	0	—	0	—	0	—	1	25	1	4	1	13	4	34	6	24	1	47	5	17	2	13	0	20	22
	850	2	12	0	—	0	—	1	6	0	—	1	7	3	20	2	24	5	34	3	19	2	35	1	18	0	20	23
	700	1	12	0	—	0	—	0	—	0	—	0	—	0	—	3	31	5	40	7	33	2	26	0	—	0	18	33
	600	0	—	1	18	0	—	0	—	0	—	0	—	0	—	1	83	7	38	6	52	2	27	0	—	0	17	43
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	120	6	57	8	56	0	—	0	—	0	15	60
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	92	1	74	2	34	0	—	0	—	0	10	79
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	128	4	92	0	—	0	—	0	7	108
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	109	0	—	0	—	0	5	109
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	0	—	4	100	0	—	—	—	—	4	100
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	0	—	5	114	0	—	—	—	—	3	114
	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.

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

JANUARY — MAY 1976

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	2	7	5	6	2	6	2	2	7	5	3	7	1	6	0	—	0	—	0	—	0	—	3	3	5	30	4
	1000	3	10	6	7	3	6	3	4	0	—	1	6	0	—	0	—	1	4	0	—	0	—	2	4	1	29	6
	850	3	11	3	13	2	13	3	4	0	—	0	—	1	3	2	7	3	24	8	21	3	16	2	16	0	30	15
	700	5	19	1	13	0	—	0	—	0	—	0	—	0	—	1	10	3	18	6	31	8	26	6	20	0	30	23
	600	3	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	62	24	8	41	10	32	7	30	0	30	32
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	54	16	40	7	38	0	29	43
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	24	0	—	6	62	13	70	6	60	0	26	64
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	88	13	68	5	92	0	20	76
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	16	10	73	1	70	0	13	79
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	82	0	—	0	9	82
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	0	—	5	98	0	—	0	5	98
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	4	7	4	11	1	13	0	—	0	—	0	—	1	17	4	13	5	7	5	7	0	—	5	7	0	29	9
	1000	4	8	5	11	0	—	0	14	0	—	0	—	0	—	1	12	2	4	0	—	2	8	2	8	0	17	9
	850	2	8	3	13	3	9	1	—	1	3	1	8	1	3	0	—	2	12	9	21	3	11	4	12	0	29	14
	700	5	22	0	—	0	—	0	—	0	—	0	—	1	7	1	13	1	4	10	28	7	33	4	22	0	29	22
	600	1	17	0	—	0	—	0	—	0	—	0	—	1	4	0	—	0	—	10	35	5	35	11	26	0	28	31
	500	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	52	12	38	8	40	0	27	41
	400	1	21	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	58	12	64	4	32	0	23	57
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	—	6	66	9	81	5	63	0	20	70
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	35	9	90	5	72	0	18	84
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	113	5	75	2	94	0	8	85
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	100	2	84	0	6	95
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	—	0	—	1	59	0	—	0	1	59
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The unmcer of cases the wind has been oceserved from the range of direction during the month.

T. 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 RANGESE AN ANDTHEM SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN 000 U.T. JANUARY 1976

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 U.T.	Surface	28	10	3	5	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	31	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	5	19	6	15	1	4	1	3	0	—	1	5	0	—	0	—	0	—	3	17	1	5	12	13	0	30	14
	700	0	—	1	21	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	24	0	—	0	3	23
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	24	10	3	10	0	—	0	—	0	—	0	—	0	—	0	—	1	8	0	—	0	—	3	5	0	31	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	6	17	3	8	3	8	0	—	1	5	1	25	0	—	1	5	1	20	3	11	6	10	4	12	0	29	12
	700	1	38	0	—	1	6	0	—	0	—	0	—	0	—	0	—	5	42	8	20	11	23	2	35	0	28	26
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	30	3	55	14	32	7	38	0	—	0	25	37
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	65	17	45	3	54	0	—	0	25	51
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	76	14	59	4	77	0	—	0	25	67
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	94	15	76	5	73	0	—	0	23	80
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	82	14	90	2	116	0	—	0	19	96
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	129	12	100	2	110	0	—	0	17	106
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	119	3	103	0	—	0	8	113
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	91	1	65	0	—	0	—	0	2	78
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

REVIEW OF AGRO METEOROLOGICAL STATIONS

MERSA MATRUH — JANUARY 1976

The mean daily air temperature and relative humidity were nearly the same as normal. The total monthly rainfall was 28.0 mm. against 31.7 mm. for normal. The maximum daily rainfall was 15.0 mm. reported on the 8th.

For cold waves prevailed most days of the month. The third wave which prevailed from the 17th till the 42th was the coldest; it yielded the lowest maximum air temperature for the month (13.2°C) on the 12st and the lowest minimum (5.0°C) on both the 19th & 22nd.

The highest maximum soil temperatures were than the corresponding values of last January at all depths with departures between 1.9°C (at 2cm.) and 0.1°C (at 100cm.). The lowest minimum soil temperatures were lower than January at all depths ths departures between 1.5°C (at 5 cm.) & 0.2°C (at 05 cm.). z MDMD DMMb

The mean daily actual sunshine duration was slightly higher than normal. The mean daily wind speed at 1.5 met. height was slightly higher than January 1975.

TAHRIR — JANUARY 1976

The mean daily air temperature and relative humidity were below normal. The total monthly rainfall was 1.7 mm, against 8.2 mm. normal.

Two cold waves were experienced during the periods (6th-8th) add (17th-23rd). In the rest of the month weather was generally mild day time and cool night time. It is worthy of mention that minimum air temperature at 5 cm. height fell below 0°C during 2 days in the dry field and during 8 days in the grass field. There minima and their dates of occurrence are as follows :

Date	21	25
Min. air temp: at 5 cm: above dry field	—0.6	—1.1

Date	2	7	14	20	22	25	26	30
Min. air temp. at 5 cm. above dry field	—0.2	—0.4	—0.5	—1.1	—2 2	—2.7	—1.2	—0.6

The highest maximum soil temperatures were lower than average at all depths except its value at 100 cm. which was higher than average by O.2°C, the departures ranged between 1.7°C (at 5 cm.) and O.2°C (at 50 cm.). The lowest minimum soil temperatures were lower than average at 2,5 & 10 cm. depths with departures between O.4° & 1:cIc and higher than average at 20, 50 & 100 cm. with departures between O.5° & O:9 C:

The mean daily actual asunshine duration washigher than normal by O.5 hour: The mean daily wind speed at 1.5 met: height and pan evaporation wereslightly lower than normal.

BAHTIM — JANUARY 1976

The mean daily air temperature and relative humidity were below average. The monthly rainfall was only O.5 mm, against 6.8 mm. for average.

Four cold waves prevailed the whole month apartfrom two Iight warm spells in the periods (15th &16 th) and (27 th & 28th). Weather was pronouncedlycold night time. It is worthy of mention that minimum air temperature at 5 cm height fell belowO°C during 10 days in the dry field, and during 8 days in the grass field. These minima and their datesof occurrence are as follows :

Date	2	7	8	11	14	21	25
Min. air temp. (°C) at 5 cm. above dry soil	—0.4	—2.8	—0.4	—0.8	—2.4	—2.4	—2.8

Date	26	27	28
Min. air temp. at 5 cm. above dry field	—1.2	—0.6	—3.0

Date	2	7	14	21	25	26	27	30
Min. air temp. at 5 cm. above dry field	—0.2	—1.9	—1.1	—2.0	—2.5	—0.8	—0.7	—3.0

The highest maximum soil temperature was higher than average at all depthsexcept at 20 cm. where it was lower by 0.2°C; the departures ranged between 2.8°C (at 50 cm.). The lowest minimum soil temperature was lower than average at 2 cm depth add higher at other depths ; the departures ranged between 0.1° & 0.7°C.

The mean daily wind speed at 1.5 met. heightwas the same as average. The mean daily actual sunshine duration and pan evaporation were higherthan average by 1.0 hour and 0.75 mm. resectively.

KHARGA — JANUARY 1976

The mean daily air temperature and relative humidity were nearly the same as normal.

Four cold waves prevailed the whole month apart from two short warm spells on the 15th and (27th & 28th). The second warm spell yielded the highest maximum air temperature for the month (28.6°C) on the 28th. The lowest maximum airtemperature was 17.2°C (on the 7th) and the *lowes'* minimum was 2.6°C (on the 24th).

The highest maximum soil temperatures werehigher than average at all depths except those at 20 & 50 cm. which were both lower by 0.3°C the departures varied between 5.O°C(at 2cm.)and O.2°C (at 100 cm.). The lowest minimum soil temperatureswere lower than averag at all depths with deprtures between 2.5°C (at 5 cm.) and O.2°C (at 50 cm).

The mean daily actual sunshine duration, wind speed at 1.5 met .height and pan evaporation were lower than average by O.3 hour, O.6 met. sec . and 0.94 mm. respectively .

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND
JANUARY — 1976

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 . . .	17.0	8.2	12.5	11.0	14.1	24.0	24.0	24.0	18.3	5.8	0.0	0.0	0.0	0.0	0.0	0.0
Tahrir	20.9	5.2	11.8	8.8	14.8	24.0	24.0	21.7	14.4	7.4	0.5	0.0	0.0	0.0	0.0	0.0
Bahtim	18.6	5.3	11.7	8.9	14.3	24.0	24.0	21.9	14.0	6.1	0.4	0.0	0.0	0.0	0.0	0.0
Kharga	20.7	6.0	13.3	10.7	15.9	24.0	24.0	23.3	17.7	9.3	1.5	0.1	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 — 1976

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.	19.8	25	13.2	21	12.2	9	5.0	1 22	2.7	20	—	—
Tahrir	24.2	28	15.8	20	12.7	16	1.3	25	—1.1	25	—2.7	25
Bahtim	23.6	28	15.0	6, 20	12.6	16	1.0	7, 27	—3.0	30	—3.0	30
Kharga	28.6	28	17.2	7	10.4	29	2.6	24	0.2	24	—	—

Table C 3.—(SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY & VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL
JANUARY — 1976

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 . .	207.7	211.2	320.2	66	67	55	30	28	7.3	7.6	10.6	12	3.2	30	4.4	—	28.0	15.0	8
Tahrir	324.6	238.5	322.8	74	67	46	18	28	6.8	7.0	11.2	5	3.4	29	3.8	3.70	1.7	1.1	5
Bahtim	297.0	234.4	323.7	75	65	44	24	28	6.5	6.6	13.0	14	3.6	29	3.9	4.17	0.5	0.4	22
Kharga	386.2	290.4	333.7	87	48	15	14	28	5.2	5.1	7.5	12	2.9	9	5.2	5.30	0.0	0.0	—

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

JANUARY — 1976

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	21.7	20.5	17.4	15.0	16.6	18.6	21.6	—	—	—	—	—	—	—	—	—
	L	6·4	5.5	7.5	10.4	13.0	16.8	20.2	—	—	—	—	—	—	—	—	—
Tahrir. . .	H	25.5	22.3	19.6	16.8	16.6	18.4	21.4	23.1	16.9	15 7	15.6	14.8	14.5	15.8	18.7	—
	L	4.1	4.9	6.6	11.0	14.4	16.9	19.7	21.6	7.1	7.5	8.5	11.2	12.8	14.9	17.3	—
Bahtim . .	H	31.7	24.4	19 9	18.0	19.5	21.8	24.8	25.8	20.7	15.2	14.4	13 9	15.4	17.5	20.6	—
	L	3.9	7.0	11.1	15.3	18.2	20.2	23.2	24.8	5.0	6.7	8.6	10.6	13.5	15.7	19.2	—
Kharga . .	H	36.6	29.8	25.9	20.7	21.4	24.1	27.1	28.6	—	—	—	—	—	—	—	—
	L	3.2	4.2	8.9	14.0	19.3	22.2	25.3	27.7	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

JANUARY — 1976

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	3.7	3.2	4.1	29	21	14	5	2	1	0	44	17
Tahrir.	2.0	1.4	2.7	29	13	6	2	0	0	0	41	18
Bahtim..	2.2	1.6	2.9	22	9	6	3	0	0	0	34	16
Kharga.	2.0	1.1	2.9	24	12	2	0	0	0	0	24	3,29&31

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VOLUME 19 NUMBER 2

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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 several 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

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

FEBRUARY 1976

Two severe cold waves during the secoud and fourth weeks. Records for maximum air temperatures on the 9th & 10th.

PRESSURE DISTRIBUTION

Four depressions passed through East Mediterranean on the 4th, 8th, 12th & 19th.

The high pressure predominating over SW Russia extended to Europe and the Mediterranean.

The mean prersure over Egypt showed slight departures form normal.

SURFACE WIND

Surface winds were generally light to moderate and blew from SWly to NWly direc tions in north, and from Nly to NWly in south. Fresh to strong winds blew during several days in scattered places.

TEMPERATURE

Four cold waves prevailed most of the month, giving rise to subnormal maximum and minimum air temperatures in general.

The second and fourth waves were pronouncedly severe and prevailed during the second and fourth weeks.

Records for maximum air temperatures were attained on the 9th & 10th in many places.

The highest and lowest maximum air temperatures reported were respectively 33.3°c at Abu Simbel on the 3rd and 9.2°c at Sallum on the 9th.

The highest and lowest minimum air temperatures reported were respectively 18.3° at Ras Binas on the 10th and 1.4°c at Farafra on the 11th.

PRECIPITATION

Light to moderate rain fell during several days over scattered places in north. The monthly rainfall amounts showed slight departures from normal.

The maximum daily and monthly amounts of rainfall reported were respectively 15.1 mm at Sallum on the 2nd and 34.1 mm. at same place.

OTHER WEATHER PHENOMENA

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

Rising sand was reported during some days in scattered places.

Cairo, January 1978

Chairman (A. F. HASSAN.)
Board of Directors

SURFACE DATA

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

FEBRUARY — 1976

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.	1017.6	+0.3	17.0	—2.9	9.4	—0.6	13.2	12.9	—1.4	9.0	—1.6	58	+ 4	—	—	—	6.1
Mersa Matruh (A)	1018.0	+0.8	16.0	—2.9	8.1	—0.4	12.0	12.0	—1.4	9.2	—1.1	70	+ 6	185.3	320.3	58	4.8
Alexandria . (A)	1017.8	+0.5	17.1	—2.2	7.9	—1.5	12.5	12.4	—1.8	9.3	—1.8	65	— 2	182.2	321.3	57	3.3
Port Said.. . (A)	1016.1	—0.9	18.5	—0.2	10.0	—2.0	14.2	13.6	—1.2	10.6	—1.4	68	— 1	202.0	321.3	63	3.4
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1017.0	—0.6	18.6	—2.3	5.2	—1.7	11.9	11.2	—1.9	8.6	—1.5	72	+ 6	203.3	321.8	63	2.7
Cairo . . . . (A)	1016.8	—0.7	18.5	—2.1	8.2	—1.2	13.4	13.0	—1.9	9.0	—1.5	58	+ 4	—	—	—	8.4
Fayoum.	—	—	20.2	—2.0	5.5	—1.9	12.8	13.4	—1.3	9.3	—0.9	63	+10	—	—	—	3.9
Minya. . . . (A)	1017.7	0.0	20.2	—2.3	4.2	—1.0	12.2	12.2	—1.2	8.2	—0.8	58	+ 5	228.0	324.6	70	6.0
Assyout. . . (A)	1017.5	+0.3	19 0	—3.7	5.1	—2.5	12.0	12.2	—2.9	7.1	—2.1	46	+ 5	—	—	—	8.1
Luxor. . . . (A)	1015.7	—0.4	23.4	—2.0	6.7	—0.2	15.0	14.7	—1.3	9.3	—0.8	47	+ 5	—	—	—	5.1
Aswan. . . . (A)	1015.7	—0.1	23.6	—2.5	9.1	—0.3	16.4	15.9	—1.8	8.4	—1.0	30	+ 5	257.2	329.4	78	13.8
Siwa.	1017.9	+0.2	19.9	—1.9	6.9	—1.0	13.4	13.2	—0.9	8.1	—0.7	47	+ 2	237.8	323.7	73	7.9
Bahariya.	1017.6	—0.6	19.8	— 5	6.2	—0.2	13.0	12.9	—1.3	7.9	—0.8	47	+ 3	—	—	—	6.3
Farafra.	1019.0	—0.5	20.6	—2.1	4.9	—0.4	12.8	12.9	—0.9	7.5	0.0	44	+ 4	—	—	—	7.1
Dakhla	1019.4	+1.3	21.0	—2.8	3.7	—2.9	12.4	12.4	—1.7	7.3	—0.9	47	+14	—	—	—	8.5
Kharga	1016.9	—0.3	21.8	—2.6	8.8	+1.6	14.9	15.1	—1.0	8.4	—0.5	41	+ 5	264.8	327.5	81	7.5
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1015.4	—0.3	20.6	—0.8	10.3	+0.3	15.4	15.6	—1.0	10.6	—0.7	50	+ 1	265.9	326.1	82	8.7
Quseir	1015.0	—1.0	21.3	—1.6	14.0	—0.4	17.6	17.4	—1.1	12.1	—0.5	50	+ 4	—	—	—	6.9

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

FEBRUARY — 1976

Station	Maximum Temperature °C									Grass Min. Tmp.		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	22.0	17	9.2	9	0	0	0	0	0	8.4	—	12.7	18	5.7	12	17	0	0	0
Mesra Matruh (A)	20.6	7	9.3	9	0	0	0	0	0	6.6	—	12.5	29	4.8	9	25	1	0	0
Alexandria . (A)	21.6	7	11.0	9	0	0	0	0	0	5.3	—	10.9	3	4.5	12	21	2	0	0
Port said . . (A)	22.6	7	12.4	10	0	0	0	0	0	9.7	—	13.1	19	5.8	13,27	15	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	24.2	7	11.2	9	0	0	0	0	0	—	—	8.7	5	1.0	12	29	14	0	0
Cairo . . (A)	24.6	7	11.9	10	0	0	0	0	0	—	—	12.3	3	5.5	12	22	0	0	0
Fayoum	25.6	7	14.1	10	1	0	0	0	0	2.9	—	9.4	5	1.4	27	29	12	0	0
Minya . . . (A)	28.0	7	14.4	10	1	0	0	0	0	1.6	—	8.6	3	0.8	12	23	18	0	0
Assyout. . . (A)	25.7	7	12.3	10	1	0	0	0	0	4.8	—	10.1	3	—1.1	11	28	14	1	0
Luxor . . . (A)	28.2	3	18.3	10	7	0	0	0	0	1.9	—	13.8	3	1.0	11	25	7	0	0
Aswan . . . (A)	31.3	9	14.4	10	8	1	0	0	0	—	—	14.6	19	4.0	11	19	1	0	0
Siwa	28.0	2	13.4	9	1	0	0	0	0	5.6	—	12.6	18	2.0	14	27	4	0	0
Bahariya	25.2	2	13.4	10	1	0	0	0	0	5.5	—	11.6	7	3.2	10,12,13	26	10	0	0
Farafra	27.0	8	14.2	10	3	0	0	0	0	2.1	—	10.3	2	—1.4	11	27	9	2	0
Dakhla	28.8	7	12.9	10	2	0	0	0	0	3.9	—	9.0	9	—1.3	11	29	21	2	0
Kharga	28.4	3	14.5	10	3	0	0	0	0	5.2	—	17.1	3	1.2	14	18	5	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . .	23.2	4.8	15.1	10	0	0	0	0	0	—	—	17.9	3	6.4	11	13	0	0	0
Quseir	25.3	8	17.3	11	1	0	0	0	0	11.8	—	17.4	3	11.5	21	0	0	0	0

TABLE A 3.—SKY COVER AND RAINFALL

FEBRUARY — 1976

Station	Mean Sky Cover Oot.					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	4.2	3.7	4.5	4.0	4.1	34.1	+23.8	15.0	2	0	8	4	2	2	0	0
Mersa Matruh (A)	2.9	4.6	4.5	4.2	4.1	18.9	+3.4	3.8	22	2	12	7	0	0	0	0
Alexandria (A)	3.9	5.5	5.5	5.0	4.8	31.1	+4.0	10.4	12	2	11	8	2	1	0	0
Port Said (A)	2.9	3.7	4.0	3.1	3.4	14.8	+3.5	8.8	23	0	9	4	1	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1.4	3.1	4.8	2.2	2.9	3.3	—3.7	2.4	4	0	5	1	0	0	0	0
Cairo (A)	2.8	3.9	4.5	2.4	3.3	0.9	—3.0	0.4	23	2	4	0	0	0	0	0
Fayoum	—	2.6	3.5	1.8	—	0.7	—0.7	0.7	18	1	1	0	0	0	0	
Minyan (A)	1.6	2.2	3.4	1.8	2.2	Tr.	—1.1	Tr.	18	1	0	0	0	0	0	0
Assyout (A)	0.5	1.4	2.4	1.2	1.4	0.0	—0.4	0.0	—	0	0	0	0	0	0	0
Luxor (A)	2.1	2.0	2.5	2.4	2.1	0.0	—0.1	0.0	—	0	0	0	0	0	0	0
Aswan (A)	1.1	2.8	2.5	2.1	2.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	4.8	3.4	4.6	3.7	4.1	0.3	—2.0	0.3	9	0	1	0	0	0	0	0
Bahariya	1.4	2.2	3.0	2.1	2.1	Tr.	—1.3	Tr.	18	1	0	0	0	0	0	0
Farafra	—	2.0	2.7	1.6	—	Tr.	Tr.	Tr.	1,2,18,26	4	0	0	0	0	0	0
Dakhla	0.5	1.2	1.5	1.5	1.1	0.0	—0.3	0.0	—	0	0	0	0	0	0	0
Kharga	1.1	1.6	2.2	1.6	1.5	Tr.	—0.3	Tr.	2	1	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.5	3.0	2.6	2.1	2.3	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Quseir	1.0	2.6	2.5	1.6	2.0	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0

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

FEBRUARY — 1976

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	8	0	0	0	0	0	0	0	0	0	1	0	0	5	3
Mersa Matruh (A)	12	0	0	0	0	0	2	0	0	0	6	1	0	5	5
Alexandria (A)	11	0	0	0	0	1	1	1	0	0	2	0	0	0	7
Port Said (A)	9	0	0	0	0	0	0	0	0	0	3	0	0	6	2
Al Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—		—	—	—	—	—	—	—	—	—	—
Tanta	5	0	0	0	0	0	5	0	0	0	1	0	0	10	1
Cairo (A)	4	0	0	0	0	0	10	0	7	0	5	1	0	5	2
Fayoum	1	0	0	0	0	0	1	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	14	0	7	0	6	0	0	13	1
Assyout (A)	0	0	0	0	0	0	0	0	0	0	1	0	0	19	1
Luxor (A)	0	0	0	0	0	0	0	0	8	0	7	0	0	18	3
Aswan (A)	0	0	0	0	0	0	0	0	2	0	6	1	0	17	1
Siwa	1	0	0	0	0	0	0	0	1	0	3	0	0	3	1
Bahariya	0	0	0	0	0	0	0	0	0	0	2	0	0	15	0
Farafra	0	0	0	0	0	0	0	0	3	0	3	0	0	—	—
Dakhala	0	0	0	0	0	0	0	0	0	0	3	0	0	23	0
Kharga	0	0	0	0	0	0	0	0	0	0	5	0	0	22	1
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	2	0	7	0	0	16	2
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0

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

FEBRURAY —1976

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 . . . . . (A)	25	2	0	1—10	23	30	56	43	30	30	28	17	29	32	62	121	501
				11— 27	0	2	42	2	3	2	0	6	23	28	58	2	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	23	32	98	45	63	32	28	23	52	60	120	123	669
Mersa Matruh . . (A)	8	0	0	1—10	26	49	24	35	37	58	32	29	34	39	27	43	433
				11—27	36	27	1	9	4	1	6	20	17	11	34	79	248
				28—47	0	0	0	0	0	0	0	0	2	5	0	0	7
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All Speeds	62	76	25	44	44	59	38	49	53	55	61	122	688
Alexandria . . (A)	6	0	0	1—10	95	42	24	27	38	23	29	37	11	15	33	64	438
				11—27	13	19	1	6	1	0	2	24	20	6	84	76	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	108	61	25	33	39	23	31	61	31	21	117	140	690
Tanta . . . . . (A)	23	0	12	1—10	57	53	38	33	28	26	34	40	40	46	45	33	473
				11—27	25	15	12	8	11	4	10	17	29	16	22	19	188
				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	68	50	41	39	30	44	57	69	62	67	52	661
Cairo . . . . . (A)	34	1	0	1—10	184	148	10	9	13	17	25	33	51	41	54	60	645
				11—27	11	11	0	0	0	0	2	4	7	0	1	0	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	195	159	10	9	13	17	27	37	58	41	55	60	681
Fayoum . . . (A)	17	1	0	1—10	247	49	5	3	3	35	23	7	11	15	19	85	502
				11—27	111	29	0	0	0	8	6	2	0	4	1	15	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	358	78	5	3	3	43	29	9	11	19	02	160	678
Minya . . . . . (A)	0	1	0	1—10	76	33	3	1	7	14	19	12	18	25	79	117	404
				11—27	98	39	0	0	0	11	12	8	1	3	17	102	291
				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	174	72	3	1	7	25	31	20	19	28	96	219	695
Assyout . . . . . (A)	77	0	0	1—10	69	37	27	21	9	9	54	73	37	67	41	68	542
				11—27	24	11	0	0	0	0	0	0	0	0	8	34	77
				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	93	48	27	21	9	9	54	73	37	67	79	102	619

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

FEBRUARY — 1976

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 . (A) . .	1	0	0	1–10	190	73	6	6	5	17	14	18	9	10	12	85	445
				11–27	166	13	0	0	0	0	0	1	1	2	10	54	247
				28–47	2	0	0	0	0	0	0	0	0	0	0	1	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**358**	**86**	**6**	**6**	**5**	**17**	**14**	**19**	**10**	**12**	**22**	**140**	**695**
Aswan . (A) . . .	54	5	0	1–10	27	30	31	68	83	29	23	15	17	57	64	57	501
				11–27	15	14	15	2	13	10	14	1	4	12	22	14	136
				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**	**44**	**46**	**70**	**96**	**39**	**37**	**16**	**21**	**69**	**86**	**71**	**637**
Siwa	10	6	0	1–10	54	32	32	31	24	26	17	21	55	64	100	114	**570**
				11–27	39	1	8	3	0	6	5	0	0	7	10	31	**110**
				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	**93**	**33**	**40**	**34**	**24**	**32**	**22**	**21**	**55**	**71**	**110**	**145**	**680**
Dakhla	3	3	1	1–10	239	76	29	22	6	13	18	9	15	15	31	95	568
				11–27	94	9	0	0	0	0	3	0	0	0	0	15	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	**333**	**85**	**29**	**22**	**6**	**13**	**21**	**9**	**15**	**15**	**31**	**110**	**689**
Kharga	6	0	0	1–10	36	24	5	5	12	2	5	3	7	41	128	18	286
				11–27	63	10	0	0	16	4	2	0	0	15	132	160	402
				28–47	0	0	0	0	0	0	0	0	0	0	0	1	2
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**99**	**34**	**5**	**5**	**28**	**6**	**7**	**3**	**7**	**56**	**261**	**179**	**690**
Hurghada	0	2	0	1–10	40	13	5	6	14	13	14	16	11	109	97	14	**352**
				11–27	128	3	0	0	2	5	0	0	0	10	90	104	**342**
				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	**168**	**16**	**5**	**6**	**16**	**18**	**14**	**16**	**11**	**119**	**187**	**118**	**694**
Quseir	0	2	0	1–10	38	14	5	6	14	13	14	16	11	111	101	12	355
				11–27	135	3	0	0	2	5	0	0	0	6	86	102	339
				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**	**17**	**5**	**6**	**16**	**18**	**14**	**16**	**11**	**117**	**187**	**114**	**694**

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

FEBRUARY— 1975

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 . . .	29	*1015m.b.	*1022m.b.	*1001m.b.	29	11.2	14.5	7.4	29	5.3
	1000 . . .	29	151	207	36	29	11.0	14.6	6.6	29	5.0
	850 . . .	29	1490	1530	1394	29	1.6	9.1	— 4.8	29	— 4.5
	700 . . .	29	3035	3108	2966	29	— 5.5	1.7	—12.0	29	—19.1
	600 . . .	29	4232	4319	4135	29	—11.6	— 5.1	—17.4	29	—26.2
	500 . . .	29	5603	5709	5477	29	—21.3	—15.0	—27.1	29	—35.0
	400 . . .	29	7216	7348	7055	29	—32.3	—24.7	—39.5	29	—45.4
	300 . . .	29	9187	9368	8979	29	—45.5	—39.3	—50.3	29	—57.1
	250 . . .	29	10395	10546	10189	29	—50.9	—44.2	—59.2	29	—61.9
	200 . . .	28	11835	12004	11679	28	—53.3	—47.8	—61.3	24	—60.5
	150 . . .	25	13666	13824	13529	25	—58.7	—49.0	—65.6	17	—68.8
	100 . . .	18	16169	16410	16018	18	—64.5	—58.0	—70.0	—	—
	70 . . .	7	18282	18372	18109	7	—69.0	—65.4	—77.1	—	—
	60 . . .	1	19300	—	—	1	—57.9	—	—	—	—
	50 . . .	—	—	—	—	—	—	—	—	—	—
	40 . . .	—	—	—	—	—	—	—	—	—	—
	30 . . .	—	—	—	—	—	—	—	—	—	—
	20 . . .	—	—	—	—	—	—	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface . . .	*29	*1001m.b.	*1006m.b.	993m.b.	29	10.0	16.3	4.7	29	4.5
	1000 . . .	28	145	194	45	20	8.5	11.5	5.4	19	4.3
	850 . . .	28	1481	1515	1431	28	2.9	14.8	— 5.0	28	— 6.6
	700 . . .	28	3037	3098	2985	28	— 4.2	— 0.7	— 9.4	28	—18.3
	600 . . .	28	4240	4315	4177	28	—10.4	— 3.8	—14.0	28	—24.4
	500 . . .	28	5622	5709	5532	28	—19.3	—12.1	—23.1	28	—32.1
	400 . . .	28	7249	7355	7147	28	—29.9	—25.6	—31.9	28	—41.2
	300 . . .	28	9244	9377	9117	28	—43.1	—39.0	—47.2	28	—52.9
	250 . . .	28	10458	10596	10337	28	—48.3	—42.3	—53.7	28	—58.0
	200 . . .	28	11916	12091	11827	28	—52.9	—47.3	—58.0	27	—62.4
	150 . . .	26	13751	13841	13680	26	—56.3	—53.9	—64.1	13	—66.0
	100 . . .	20	16243	16334	16166	20	—62.0	—61.8	—71.3	—	—
	70 . . .	16	18410	18470	18299	16	—65.6	—61.8	—70.1	—	—
	60 . . .	15	19322	19470	19270	15	—64.3	—58.7	—69.2	—	—
	50 . . .	15	20468	20540	20319	15	—63.1	—60.0	—68.4	—	—
	40 . . .	14	21959	22050	21790	14	—60.8	—57.6	—63.5	—	—
	30 . . .	14	23667	23751	23470	14	—58.8	—55.8	—60.1	—	—
	20 . . .	7	26241	26363	26018	7	—55.9	—54.1	—58.1	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Aswan 0000 U.T.	Surface . . .	29	*994m.b.	*998m.b.	*986m.b.	29	11.9	16.2	6.2	29	1.3
	1000 . . .	29	138	175	73	—	—	—	—	—	—
	850 . . .	29	1498	1528	1459	29	9.3	16.8	3.0	29	5.9
	700 . . .	28	3094	3131	3052	29	3.1	6.8	— 2.6	29	—10.6
	600 . . .	28	4328	4376	4271	28	4.4	— 0.1	—10.7	28	—15.1
	500 . . .	28	5744	5813	5669	28	—13.0	— 9.3	—17.3	28	—22.3
	400 . . .	28	7410	7499	7306	28	—24.2	—18.5	—29.3	28	—32.7
	300 . . .	27	9451	9570	9294	27	—38.0	—32.7	—45.3	27	—46.4
	250 . . .	27	10682	10830	10482	27	—46.3	—42.5	—53.1	27	—54.8
	200 . . .	27	12141	12304	11909	27	—54.9	—50.8	—60.6	26	—62.8
	150 . . .	25	13939	14106	13730	25	—65.1	—58.7	—70.5	1	—67.1
	100 . . .	18	16376	16762	16190	18	—75.5	—70.2	—81.1	—	—
	70 . . .	10	18440	18521	18358	10	—72.3	—64.2	—77.4	—	—
	60 . . .	7	19406	19610	19321	7	—68.5	—66.0	—70.7	—	—
	50 . . .	7	20537	20473	20358	7	—65.2	—62.1	—66.4	—	—
	40 . . .	6	21925	21960	21880	6	—62.1	—59.0	—63.5	—	—
	30 . . .	6	23596	23650	23500	6	—58.3	—55.5	—59.7	—	—
	20 . . .	3	26154	26200	26076	3	—53.9	—53.2	—54.2	—	—
	10 . . .	1	30473	—	—	1	—42.4	—	—	—	—

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

pressurecorrected 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

FEBRUARY— 1976

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Marsa Matruh (A) 1200 U.T.	Surface	29	1015mb.*	1022mb.*	1005mb.*	29	15.2	18.8	10.4	29	3.8
	1000	29	153	209	71	29	13.9	17.1	8.2	29	2.8
	850	29	1495	1584	1415	29	2.4	10.3	—5.5	29	—10.1
	700	29	3041	3111	2965	29	—4.6	—0.2	—10.5	29	—22.0
	600	29	4242	4323	4153	29	—11.0	—5.6	—16.3	29	—29.6
	500	29	5618	5713	5517	29	—20.1	—12.9	—25.8	29	—38.4
	400	29	7234	7351	7099	29	—31.8	—24.8	—38.1	29	—48.2
	300	29	9209	9359	9036	29	—44.6	—39.7	—49.8	29	—59.7
	250	29	10416	10582	10256	29	—49.9	—43.9	—54.1	29	—64.2
	200	29	11864	12009	11710	29	—53.2	—46.8	—62.5	28	—67.0
	150	29	13698	13866	13530	29	—57.0	—50.0	—62.8	18	—69.5
	100	21	16231	16411	16110	21	—63.8	—58.3	—69.3	—	—
	70	8	18453	18623	18315	8	—63.4	—60.0	—67.1	—	—
	60	3	19437	19500	19340	3	—61.1	—56.3	—66.8	—	—
	50	3	20468	20597	20384	3	—61·2	—57.8	—66.1	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	29	1000m.b.*	1005m.b.*	993m.b.*	29	16.8	23.0	10.5	29	2.2
	1000	29	137	179	44	19	15.7	19.0	10.0	19	1.9
	850	28	1486	1528	1432	28	3.5	13.0	—2.0	28	—3.5
	700	28	3044	3099	2993	28	—3.2	—0.5	—8.1	28	—16.5
	600	28	4253	4327	4188	28	—9.4	—3.0	—13.5	28	—21.9
	500	28	5642	5730	5558	28	—17.8	—12.2	—23.0	28	—29.6
	400	28	7274	7372	7126	28	—29.1	—24.5	—34.5	28	—39.6
	300	28	9286	9394	9128	28	—40.9	—36.6	—48.0	28	—51.7
	250	27	10503	10627	10357	27	—46.6	—40.0	—52.7	27	—56.8
	200	27	11974	12103	11807	27	—50.0	—44.3	—55.2	27	—60.1
	150	26	13836	13978	13688	26	—54.6	—50.7	—60.3	25	—63.8
	100	21	16395	16570	16219	21	—60.0	—56.3	—64.9	2	—67.6
	70	17	18625	18798	18416	17	—59.2	—55.3	—68.1	—	—
	60	14	19626	19800	19430	14	—56.9	—52.8	—61.5	—	—
	50	14	20750	20928	20[illegible]08	14	—51.0	—48.3	—57.7	—	—
	40	12	22322	22500	22200	12	—50.4	—44.9	—59.3	—	—
	30	12	24121	24298	23[illegible]82	12	—46.0	—38.4	—61.5	—	—
	20	8	26844	27028	26701	8	—38.4	—33.2	—41.4	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T	Surface	29	992m.b.*	998 m.b.*	986m.b.*	29	22.9	29.8	15.2	29	2.9
	1000	29	127	175	60	—	—	—	—	—	—
	850	29	1507	1535	1467	29	11.1	20.0	2.6	29	—9.9
	700	9	3110	3146	3063	29	4.6	8.5	0.8	29	—15.5
	600	28	4351	4397	4302	28	—1.9	3.0	—6.0	28	—20.6
	500	28	5779	5834	5723	28	—11.1	—6.9	—15.6	28	—27.8
	400	28	7457	7544	7375	28	—23.0	—17.4	—28.3	28	—37.9
	300	28	9511	9585	9388	28	—36.5	—31.6	—43.4	28	—50.9
	250	27	10751	10841	10606	27	—44.7	—39.5	—50.6	27	—58.2
	200	27	12217	12325	120[illegible]3	27	—53.8	—49.8	—60.0	25	—65.8
	150	26	14024	14134	13913	26	—64.1	—59.9	—69.4	—	—
	100	25	16155	16552	16345	25	—73.4	—68.2	—78.0	—	—
	70	20	18554	18[illegible]52	18470	20	—70.5	—64.3	—74.5	—	—
	60	19	19517	19600	19034	19	—67.6	—65.0	—72.3	—	—
	50	19	20587	20[illegible]85	20490	19	—63.2	—59.9	—70.6	—	—
	40	12	2[illegible]039	22144	21960	12	—58.4	—55.7	—60.8	—	—
	30	10	23790	23879	23697	10	—54.2	—49.2	—59.1	—	—
	20	5	26432	26505	26340	5	—47.6	—42.8	—52.2	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = Number of observations of specified pressure surface.

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

TABLE B2—MEAN AND EXTREME VALUES OF THE FREEZING LEuEL AND THE TROPOPAUES; THE HIGHEST WIND SPEED IN THE UPPER AIR.
FEBRUARY 1976

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 UT	(N)	(N)	(N)							(N)	(N)	(N)										
Mersa Matruh	1861 (29)	815 (29)	—6.8 (29)	3310	678	—19.6	840	918	—2.8	10272 (21)	264 (21)	—52.4 (21)	12000	175	—57.7	8290	335	—45.4	2830	—	240	43
Helwan	2115 (28)	792 (28)	—8.6 (28)	3380	672	— 9.1	850	920	—0.4	11358 (24)	226 (24)	—54.9 (24)	15610	110	—65.9	9030	306	—45.6	9690	282	310	172
Aswan	3601 (28)	658 (28)	—11.9 (28)	4440	594	—15.5	2660	728	—20.8	16300 (8)	102 (8)	—76.7 (8)	17750	79	—78.4	15400	11.8	—72.8	2150	—	276	38
1200 UT	(N)	(N)	(N)							(N)	(N)	(N)										
Mersa Matruh	2054 (29)	786 (29)	—15.2 (29)	3200	692	—25.0	850	922	—6.5	10886 (23)	193 (23)	—55.1 (23)	13690	152	—60.0	7740	365	—43.4	10515	278	240	100
Helwan	2221 (28)	780 (28)	—9.9 (28)	3490	663	— 7.9	1100	895	—1.0	11258 (25)	230 (25)	—50.0 (25)	15470	118	—60.0	8120	358	—32.5	9510	289	285	150
Aswan	3972 (28)	630 (28)	—19.0 (28)	4820	570	—20.2	3240	685	—22.7	16286 (19)	104 (19)	—73.5 (19)	17490	086	—73.8	14820	133	—71.9	11110	236	295	170

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.**

M. MATRUH (A) — FEBRUARY 1976

Station	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360)°																								Number of calm winds	Total number of observations (TN)	Mean speed 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	4	11	1	5	1	1	1	13	5	7	1	2	3	16	2	18	6	9	0	—	0	—	5	16	1	29	10
	1000	1	17	0	—	0	—	0	—	1	15	1	16	0	—	0	—	2	16	0	—	0	—	0	—	0	5	16
	850	1	24	0	—	0	—	0	—	0	—	1	18	0	—	0	—	2	12	0	—	0	—	0	—	0	4	17
	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	3	13	1	8	1	11	2	16	1	8	3	11	0	—	0	—	2	16	3	17	4	16	9	15	0	29	14
	1000	1	14	1	17	1	17	3	15	0	—	1	12	0	—	1	19	1	27	3	27	3	23	1	9	0	16	19
	850	1	14	2	14	0	—	0	—	0	—	1	6	1	26	2	36	2	24	2	24	3	15	2	10	0	16	19
	700	1	14	0	—	1	5	0	—	0	—	0	—	0	—	4	29	2	57	0	—	4	13	2	20	0	14	24
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	54	3	20	2	20	4	22	0	—	0	10	24
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	2	52	4	36	2	25	0	—	0	9	36
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	2	66	4	36	1	52	0	—	0	7	46
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	1	80	1	35	0	—	0	—	0	2	58
	250	0	—	0	—	0	—	—	—	0	—	0	—	0	—	—	—	1	90	0	—	0	—	—	—	0	1	90
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	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 B3.—(*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) — FEBRUARY 1976

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—260°)																								Num er of Calm winds	Total Number of Observations (T.N)	Mean Scalar wind speed (knots)
		345/014		015/643		045/074		075/104		105/134		135/164		1 5/194		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	4	5	8	11	4	9	1	4	2	4	2	7	0	—	0	—	3	6	1	7	0	—	2	4	2	29	7
	1000	5	9	4	12	4	9	1	12	0	—	1	5	0	—	0	—	1	4	0	—	2	6	0	—	1	19	8
	850	7	12	4	16	3	10	1	4	0	—	0	—	0	—	0	—	2	36	3	17	4	19	5	21	0	29	16
	700	5	22	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	24	8	30	8	21	0	27	28
	600	3	31	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	44	9	38	9	32	0	26	36
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	67	12	43	8	44	0	24	47
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	74	14	70	6	53	0	21	65
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	11	94	6	91	0	17	93
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	95	1	95	0	9	95
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	—	3	110	1	100	0	4	108
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	120	0	—	0	1	120
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	4	11	3	10	1	5	0	—	0	—	2	4	1	4	1	18	2	8	5	9	1	15	9	10	0	29	10
	1000	5	11	3	10	1	6	0	—	0	—	1	5	0	—	0	—	0	—	1	8	2	16	6	11	0	19	11
	850	1	10	7	12	6	13	0	—	1	4	0	—	0	—	1	5	1	21	4	26	4	22	3	13	0	28	16
	700	4	14	2	17	2	24	0	—	0	—	0	—	0	—	0	—	1	56	4	42	8	29	7	23	0	28	27
	600	4	26	1	46	0	—	0	—	0	—	0	—	0	—	0	—	1	82	3	54	14	36	5	38	0	28	39
	500	4	45	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	86	15	49	4	38	0	26	51
	400	2	94	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	71	9	55	4	60	0	19	64
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	41	10	91	3	84	0	14	93
	250	1	131	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	118	1	32	0	8	122
	200	0	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	0	—	3	110	0	—	0	3	110
	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 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 (0000) U.T. — FEBRUARY 1976

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	23	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	7	1	8	1	6	2	6	0	29	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	9	14	2	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	12	4	19	10	15	0	28	14
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	25	0	—	25
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	20	10	0	—	1	3	0	—	0	—	0	—	2	7	0	—	0	—	2	8	0	—	4	12	0	29	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	5	13	2	8	1	8	0	—	1	9	0	—	1	25	0	—	2	13	1	8	0	14	10	12	0	29	12
	700	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	28	4	26	16	28	1	18	0	26	27
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	43	11	39	10	41	0	—	0	24	40
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	60	12	59	7	64	0	—	0	22	61
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	71	13	79	4	79	1	130	0	21	80
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	85	14	95	1	102	0	—	0	19	96
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	82	14	101	1	115	0	—	0	16	101
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	97	8	105	1	78	0	—	0	10	102
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	119	5	93	0	—	0	—	0	6	97
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	50	1	49	0	—	0	2	50
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	0	—	0	1	40
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	21	0	—	0	—	0	1	21
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed from the range of directon during themonth.

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

MONTHLY REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — FEBRUARY 1976

The mean daily air temperature was below normal and the mean daily relative humidity was above normal. The tatal monthly rainfall was 18. 9mm. against 15.5mm. for normal.

Weather was characterized by three cold waves which prevailled most days of the month. The first wave was moderate while the second and third waves were pronouncedly cold. The second cold wave yielded on the 9th the lowest maximum air tempera ture (9.3°c) which is a record since the year 1947, and also the lowest minimum air temperature (4.8°c).

The highest maximum soil temperatures were higher than the corresponding values of last February at all depths except at 50 cm. where it was lower; the departures varied between 0.3° and 0.9°c. The lowest minimum soil temperatures were higher thanlast February at all depths except those at 20 &50 cm. which were lower; the departures varied between 0.1° and 1.1°c.

The mean daily actual sunshine duration was lower than average by 0.9 hour. The mean daily wind speed at '.5 met. height was slightly lower than the corresponding value of February 1975.

TAHRIR — FEBRUARY 1976

The mean daily air temperature was below normal and the mean daily relative humidity was rather normal. The total monthly rainfall was 2.6 mm. against 4.5 mm. for normal.

Weather was mild during the first week, and pronouncedly cold most of the rest of the month. The lowest maximum air temperature was 11.1°c (on the 9th) and the lowest minimum 0.9°c (on the 12th), both of which is a record since the year 1961. It is worthy of mention that minimum air temperature at 5 cm. heigh fell below O°c during two days in the dry field and during six days in the grass field. These minima and their dates of occurrence are as follows

Date	12	13
Min. air tem. at 5 cm. above dry field	—1.8	—04

Date	12	13	15	20	21	28
Min. air temp. at 5 cm. above grass field	—3.5	—2.2	—1.2	—0.6	—0.2	—0.6

The highest maximum soil temperatures were lower than average at all depths with departures between 6.8°c (at 2 cm.) and 0.8°c (at 100 cm.). The lowest minimum soil temperatures were lower than average at 2,5,10 cm. with departures between 2.6° & 1.6°c, highe than average at 20 & 50 cm. by 0.1°& 0.4°c respectively, and the same as average at 100 cm. depth.

The mean daily actual sunshine duration wind speed at 1.5 met. height and pan evaporation were lower than average by 0.9 hour, 0.2 met. sec. and 1.45 mm. respectively.

BAHTIM — FEBRUARY 1976

The mean daily air temperature was below average and the mean daily relative humidity was nearly the same as average. The total monthly rainfall was 1.5 mm. against 0.5 mm. for average.

Weather was generally mild during the first week and pronouncedly cold during the rest of the month. The lowest maximum air temperature was 12.2°c (on the 10th) which is a record since the year 1967, and the lowest minimum was 0.7°c (on the 28th). A characteristic feature of this month is that minimum air temperature at 5 cm. height fell below 0°c during 12 days in the dry field and 13 days in the grass field. These minima and their dates of occurrence are as follows :

Date	12	13	14	15	17	19
Min. air temp. at 5 cm. above dry field	—2.6	—2.8	—0.9	—2.0	—0.6	—0.4

Date	20	21	22	23	26	28
Min. air temp. at 5 cm. above dry field	—0.2	—2.2	—1.6	—0.1	—3.1	—3.1

Date	10	12	13	14	15	17	20
Min. air temp, at 5 cm. above grass field	—0.2	—2.6	—2,2	—1.2	—2,1	—0.7	—0.4

Date	21	22	23	26	27	28
Min, air temp. at 5 cm. above grass field	—2.1	—1.9	—0.2	—3.0	—0.2	—2.8

The highest maximum soil temperatures were lower than average at all depths till 50 cm. with departures between 2.8°c (at 2sm.) and 0.2°c (at 50 cm.), and higher than average at 100 cm. depth by 0.6°c. The lowest minimum soil temperature was the same as average at 2 cm.; lower than average at 5 & 10 cm. and higher than average at 20,50 & 100 cm., the departures varied between 0.2° & 0.6°c.

The mean daily wind speed at 1.5 met. height was higher than average by 0.2 met. sec. The mean daily actual sunshine duration and pan evaporation were lower than average by 0.8 hour and 0.6 mm.

KHARGA — FEBRUARY 1975

The mean daily air temperature was below normal, while the mean daily relative humidity was slightly above normal.

Weather was mild from the 1st till the 9th, and markedly cold during the rest of the month. The lowest maximum air temperature was 14.5°c reporthed on the 10th, which is a record since the year 1961. The lowest minimum air temperature at 5 cm. above soil was below 0°C (-1.4°c) reported on the 14th.

The highest maximum soil temperatures were lower than average at all depths with departures between 2.5°c (at 2 cm.) and 0.7°c (at 100 cm.). The lowest minimum soil temperatures were lower than average at depths till 20 cm. with departures between 0.8°c (at 2 cm.) & 2.5°c (at 10 cm.) and higher by 0.1°c at both 50 & 100 cm. depths.

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaportation were lower than average by 1.0 hour, 0.1 met./sec. and 0.83 mm. respectively.

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

FEBRUARY — 1976

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. . .	16.0	8.0	12.1	10.7	13.5	24	24	24	17.0	4.6	0.1	0.0	0.0	0.0	0.0	0.0
Tahrir	19.5	4.9	11.6	8 5	14.6	24	24	22.0	14.1	6.4	0.4	0.0	0.0	0.0	0.0	0.0
Bahtim	18.4	4.1	11.2	8.2	14.4	24	24	21.6	13.3	6.0	0.4	0.0	0.0	0.0	0.0	0.0
Kharga	21.8	8.8	15.3	13.0	17.4	24	24	23.5	20.6	12.1	4.0	0.0	0.0	1.9	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.

FEBRUARY — 1976

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. . .	20.6	7	9.3	9	12.5	29	4.8	9	1.0	16	—	—
Tahrir	25.4	7	11.1	9	10.5	3	0.9	12	— 1.8	12	3.5	12
Bahtim	23.4	7	12.2	10	8.0	5	0.7	28	— 3.1	26.28	3.0	26
Kharga	28.4	3	14.5	10	17.1	3	1.2	14	— 1.4	14	—	—

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

FEBRUARY — 1976

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	252.7	185.3	320.3	58	70	58	30	3	7.4	7.5	10.8	18	4.2	4	4.8	—	18.9	3.8	22
Tahrir . .	352.4	301.6	321.6	62	67	46	23	7	6.6	6.7	10.1	4	2.4	4	3.5	3.59	2.6	2.0	23
Bahtim . .	343.0	210.6	322.3	65	66	46	20	2	6.4	6.6	10.1	5	3.4	4	4.2	4.26	1.5	0.9	23
Kharga. .	465.8	264.8	327 5	81	41	28	15	3	5.1	5.0	6.9	6	3.2	14	7.5	7.89	Tr.	Tr.	2

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

FEBRUARY — 1976

STATION	Highest (H) lower (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	22.9	22.2	19.6	16.5	15.5	17.0	21.0	—	—	—	—	—	—	—	—	—
	L	6.4	6.5	8.3	10.0	11.4	15.6	19.0	—	—	—	—	—	—	—	—	—
Tahrir	H	27.8	23.6	20.7	17.3	16.7	17.4	19.6	21.4	18.7	16.9	16.0	14.8	15.0	15.5	17.3	—
	L	4.6	5.3	7.7	12.0	14.7	16.4	19.0	20.7	7.3	8.6	9.4	11.4	13.3	15.0	17.0	—
Bahtim	H	33.2	25.4	20.3	18.2	18.8	20.2	23.2	24.6	22.7	16.1	14.8	14.0	14.6	15.8	19.2	—
	L	6.4	8.0	11.0	15.2	17.7	19.5	22.3	23.8	6.9	7.8	9.4	11.4	13.8	15.5	18.3	—
Kharga	H	33.8	31.4	27.0	22.6	21.2	22.5	25.5	27.7	—	—	—	—	—	—	—	—
	L	4.3	6.7	9.6	15.0	19.7	22.2	24.6	26.8	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

FEBRUARY — 1976

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at (10 metres)							Max.Gust 10 metre	
	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 . .	3.9	3.1	4.6	29	19	11	9	5	2	0	44	4
Tahrir	2.1	1.3	2.9	25	15	4	1	0	0	0	39	7
Bahtim	2.4	1.4	3.3	26	14	3	1	1	0	0	41	7
Kharga . . .	2.8	1.9	3.8	25	17	5	2	0	0	0	37	2

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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 several 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 station.

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

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
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GENERAL SUMMARY OF WEATHER CONDITIONS

MARCH 1976

Changeable weather, Commenced by a short cold wave and intervened by light and short khamsin waves.

PRESSURE DISTRIBUTION

Tranists of seven depressions through East Mediterranean was the significant feature during this month. Four of these depressions moved along the Mediterranean and passed through its eastern part on the 5th, 8th, 16th and 19th. The other three were desert depressions and had tracks south of the North African coast crossing the East Mediterranean on the 12th, 23th, and 31st. That of the 12th was the deepest depression during the whole month.

The monthly mean atmospheric pressure was generally below normal.

SURFACE WIND

Light to moderate N ly and NW winds prevailed most of the month. In association with the khamsin waves surface winds were generally fresh S ly and SW ly, strong at times ; Gales were reported at few places.

TEMPERATURE

This month started with a short cold wave and was intervened by several khamsin waves, short and light.

Maximum air temperatures showed slight to moderate departures above normal during the khamsin waves and below normal otherwise

Minimum air temperatures experienced pronounced departures below normal during the cold wave. Otherwise, minimum air temperatures showed frequent irregular departures below and above normal, generally slight or moderate.

The highest and lowest maximum air temperatures reported were respectively 43.0°C at Draw on the 30th and 13.6°C at Damietta on the 1st.

The highest and lowest minimum air temperatures reported were respectively 24.0°C at Abu Simbel on the 11th & 12th and 0.5°C at Bahtim on the 2nd.

PRECIPITATION

Light to moderate rain was reported during few days over scattered places in the north.

Monthly amounts were generally below normal.

The maximum daily and monthly amounts of rainfall were respectively 6.0 mm. at Sidi Barrani on the 18th. and 16.7 mm. at the same station.

OTHER WEATHER PHENOMENA

Rising sand occurred over scattered places in association with khamsin waves, in particular on the 12th when widespread rising sand and scattered sandstorms were reported.

Early morning mist developed during some days in north.

Chairman (M. S. EL DIN HARB)

Board of Directors

Cairo, March 1979

SURFACE DATA

Table. A-1.—MEAN VALUES OF THE ATMOSPHERIC FRESSURE, AIR TEMPERATURE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION MARCH—1976

STATION	Atnospheric Pressure mbs. M.S.L		Air Temperature 'C									Relative Humidity %		Bright Sunshine			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	%	
Sallum.	1013.3	—1.7	19.4	2.1	11.7	+0.5	15.6	15.2	—0.1	11.4	—0.2	63	+9	—	—	—	6.8
Mersa Matruh (A)	1013.5	—2.2	18.7	—1.8	10.1	0.0	14.4	14.2	—0.9	11.6	+0.1	75	+13	252.5	371.7	68	5.0
Alexandria . . (A)	1013.5	—2.0	20.7	—0.6	10.5	—0.7	15.6	15.3	—0.6	11.9	—0.4	67	+2	247.2	371.8	66	3.7
Port Said. . . (A)	1012.2	—3.0	21.1	+0.8	12.4	—1.0	16.8	15.9	—0.6	12.9	—0.3	70	+3	260.8	371.8	70	3.7
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chazza.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1012.9	—3.0	22.1	—1.7	7.3	—1.4	14.7	14.1	—1.6	11.1	—0.7	71	+11	270.0	371.9	73	3.5
Cairo. . . . . (A)	1012.9	—2.3	23.7	—0.2	11.4	—0.1	17.6	17.3	—0.2	11.6	—0.5	51	+2	—	—	—	11.0
Fayoum..	—	—	24.8	—0.5	9.2	—0.7	17.0	16.7	—1.0	11.8	—0.2	56	+10	—	—	—	5.8
Menya. . . . . (A)	1013,1	—2.3	25.6	—0.2	8.6	+0.7	17.1	17.2	+0.6	11.6	+0.5	51	+4	249.7	372.2	67	8.5
Assyout. . . . . (A)	1013.0	—1.4	25.5	—1.0	10.1	—0.6	17.8	17.6	—1.0	9.9	—1.1	33	0	—	—	—	12.5
Luxor. . . . . (A)	1011.5	—1.9	29.2	—0.2	11.6	+0.8	20.4	20.2	0.0	12.5	+0.2	38	+4	—	—	—	7.3
Aswan. . . . . (A)	1010.8	—2.3	29.9	—0.5	14.2	+1.6	22.0	22.0	+0.1	11.8	+0.6	24	+7	256.7	373.0	69	16.4
Siwa.	1011.7	—3.7	23.8	—1.3	10.2	+1.7	17.0	17.4	+0.1	12.0	+1.6	50	+13	242.7	371.7	65	10.7
Bahariya	1012.5	—2.7	24.7	—0.9	10.1	+1.1	17.4	17.4	—0.5	10.4	—0.1	39	+4	—	—	—	10.5
Farafra.	1013.8	—2.8	25.6	—0.9	10.0	+1.2	17.8	17.8	0.0	10.2	+0.5	35	+6	—	—	—	11.1
Dakhla.	1013.1	—1.9	27.1	—0.7	9.1	0.0	18.1	18.1	—0.1	10.8	+0.5	39	+14	—	—	—	14.0
Kharga.	1011.7	—2.3	27.7	—0.8	15.6	+4.6	21.6	21.6	+1.6	12.5	+1.6	34	+5	261.1	372.8	70	11.7
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
Hurghada.	1011.7	—1.7	23.4	—0.2	12.8	+0.3	18.6	18.9	0.0	12.9	—0.3	46	—3	—	—	—	8.8
Quseir.	1011.4	—2.2	24.1	—0.6	16.0	—0.4	20.0	20.0	—0.6	14.3	+0.1	50	+4	—	—	—	7.5

Table A 2.—MAXIMUM & MINIMUM AIR TEMPERATURE

MARCH — 1976

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	<-5
Sallum	28.4	29	15.7	6	2	0	0	0	0	11.0	—	15.6	29	8.5	13	8	0	0	0
Mersa Matruh (A)	25.7	15	15.6	2	1	0	0	0	0	8.2	—	14.0	28	5.1	2	18	0	0	0
Alexandria (A)	26.4	15	16.3	1	3	0	0	0	0	8.4	—	13.8	24	2.2	2	12	2	0	0
Port Said (A)	30.2	30	14.9	1	1	1	0	0	0	12.2	—	16.7	30	8.8	2,6,14	4	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	30.5	30	16.8	1	4	1	0	0	0	—	—	12.2	31	0.4	2	24	6	0	0
Cairo (A)	31.7	30	16.2	1	12	1	0	0	0	—	—	19.8	30	5.0	1	8	0	0	0
Fayoum	30.3	30	18.8	1	15	1	0	0	0	6.9	—	16.1	31	3.6	2	19	3	0	0
Minya (A)	34.0	29	19.8	1	15	2	0	0	0	6.3	—	17.3	30	1.0	2	19	6	0	0
Assyout (A)	35.2	29	19.4	1	15	5	1	0	0	4.8	—	23.7	30	1.5	2	11	5	0	0
Luxor (A)	39.0	29	22.4	1	26	11	3	0	0	5.0	—	20.5	31	5.4	2	11	0	0	0
Aswan (A)	40 2	30	24.0	2	27	14	4	0	0	—	—	22.2	31	8.8	2	2	0	0	0
Siwa	29.8	2	19.2	12	10	0	0	0	0	7.6	—	18.0	29	3.5	3	14	1	0	0
Bahariya	30.9	11	18.8	1	13	2	0	0	0	9.3	—	17.4	29	3.3	2	16	2	0	0
Farafra	33 3	11	19.2	2	15	5	0	0	0	8.2	—	18.0	30	4.0	2	12	4	0	0
Dakhla	39.2	29	20.6	13	20	5	1	0	0	9.1	—	20.4	30	1.8	14	19	7	0	0
Kharga	37.8	29	22.0	4	21	8	1	0	0	11.9	—	27.0	30	8.4	4	2	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	31.7	12	18.1	1	10	1	0	0	0	—	—	20.4	12	6.1	3	4	0	0	0
	31.4	31	18.6	1	9	1	0	0	0	13.4	—	19.6	12	13.2	2	0	0	0	0

Table A 3. — SKY COVER AND RAINFALL.

MARCH — 1976

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	4.5	3.1	3.8	3.4	3.6	10.3	+ 0 5	4.5	7	0	7	4	0	0	0	0
Mersa Matruh (A)	2.3	4.0	4.6	3.0	3.5	7.4	— 4.0	2.7	5	1	6	4	0	0	0	0
Alexandria . . (A)	2.6	3.7	4.4	3.7	3.4	6.9	— 5.5	3.0	19	0	5	2	0	0	0	0
Port Said . . (A)	1.1	2.5	2.6	1.8	1.9	1.1	— 7.4	0.4	5	0	5	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	0.7	1.8	3.9	0.9	1.9	7.4	+ 2.7	3.6	5	0	3	3	0	0	0	0
Cairo . . . . (A)	2.1	2.9	3.7	2.1	2.7	Tr.	— 2.4	Tr.	11,19 20,22	4	0	0	0	0	0	0
Fayoum	—	2.5	3.3	1.2	—	Tr.	— 1.4	Tr.	11	1	0	0	0	0	0	0
Minya . . . . (A)	2.0	2.7	3.1	2.5	2.4	Tr.	— 0.2	Tr.	30	1	0	0	0	0	0	0
Assyout . . . . (A)	0.8	1.8	2.3	1.8	1.6	0.0	— Tr.	0 0	—	0	0	0	0	0	0	0
Louxor . . . . (A)	1.1	2.4	2.9	2.5	2.3	0.3	+ 0.3	0.3	12	0	1	0	0	0	0	0
Aswan . . . . (A)	1.6	2.6	2.6	2.4	2.3	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	2.8	2.3	3.3	1.7	2.1	1.4	+ 1.2	1.2	18	0	2	1	0	0	0	0
Baharia	1.4	2.4	3.7	2.2	2.5	Tr.	0.0	Tr.	8,29 30	3	0	0	0	0	0	0
Farafra	—	2.5	3.9	2.6	—	Tr.	— 0.2	Tr.	28,29 30,31	4	0	0	0	0	0	0
Dakhla	1.3	2.1	2.1	1.8	1.8	Tr.	Tr.	Tr.	29	1	0	0	0	0	0	0
Kharga	1.0	2.4	3.2	1.3	2.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.8	2.4	2.8	1.5	2.2	Tr.	— 0.4	Tr.	19	1	0	0	0	0	0	0
Quseir	1.1	2.0	2.6	1.9	1.8	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0

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

MARCH—1976

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	7	0	0	0	0	0	0	0	0	0	0	0	0	7	1
Marsa Matruh (A)	6	0	0	0	0	0	9	0	3	0	10	2	0	5	2
Alexandria (A)	5	0	0	0	0	0	2	1	1	0	3	1	0	8	0
Port Said (A)	5	0	0	0	0	0	0	0	0	0	5	1	0	19	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	3	0	0	0	0	0	8	0	1	0	0	2	0	19	0
Cairo (A)	0	0	0	0	0	0	5	2	9	0	10	2	0	11	1
Fayoum	0	0	0	0	0	0	0	0	0	0	3	0	0	15	2
Minya (A)	0	0	0	0	0	0	7	0	7	0	12	2	0	15	4
Assyout (A)	0	0	0	0	0	0	0	0	0	0	11	3	3	21	1
Luxor (A)	1	0	0	0	0	0	0	0	16	0	11	3	0	15	2
Aswan (A)	0	0	0	0	0	0	0	0	3	0	11	2	0	18	4
Siwa	2	0	0	0	0	0	0	0	1	0	3	0	0	12	0
Bahariya	0	0	0	0	0	0	0	0	0	0	10	0	0	15	1
Farafra	0	0	0	0	0	0	0	0	8	0	8	4	0	14	9
Dakhla	0	0	0	0	0	1	0	0	0	0	8	0	0	20	2
Kharga	0	0	0	0	0	0	0	0	1	0	8	0	0	17	1
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	5	0	9	0	0	18	3
Quseir	0	0	0	0	0	0	0	0	0	0	1	0	0	20	0

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

MARCH — 1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing within 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	8	6	0	1—10	32	21	130	60	57	15	8	21	12	48	89	73	566
				11—27	1	1	15	33	5	0	1	10	6	32	25	35	164
				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	**33**	**22**	**145**	**93**	**62**	**15**	**9**	**31**	**18**	**80**	**114**	**108**	**730**
Mersa Matruh (A)	9	0	0	1—10	44	120	51	45	25	12	24	53	63	23	14	35	509
				11—27	9	11	12	42	17	13	5	5	19	24	51	9	217
				28—47	0	0	0	1	0	0	2	0	1	2	3	0	9
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**53**	**131**	**63**	**88**	**42**	**25**	**31**	**58**	**83**	**49**	**68**	**44**	**735**
Alxandria (A)	7	0	0	1—10	99	85	37	48	32	12	27	50	15	18	21	42	48 6
				11—27	45	23	28	18	1	4	3	17	36	50	20	6	251
				28—47	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
				All speeds	**144**	**108**	**65**	**66**	**33**	**16**	**30**	**67**	**51**	**68**	**41**	**48**	**737**
Tanta	9	0	1	1—10	38	69	68	36	19	8	29	29	28	37	26	26	413
				11—27	32	70	36	15	15	12	17	33	54	25	2	9	320
				28—47	0	0	0	0	0	0	0	0	1	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**70**	**139**	**104**	**51**	**34**	**20**	**46**	**62**	**83**	**62**	**28**	**35**	**734**
Cairo (A)	19	8	0	1—10	152	158	38	13	18	31	33	43	65	51	34	21	657
				11—27	0	36	2	0	0	0	0	1	13	8	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	**152**	**194**	**40**	**13**	**18**	**31**	**33**	**44**	**78**	**59**	**34**	**21**	**717**
Fayoum	10	0	0	—10	190	52	6	0	7	78	32	23	20	20	36	55	516
				11—27	104	22	0	0	0	20	10	2	6	14	18	19	215
				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	**294**	**74**	**6**	**0**	**7**	**98**	**42**	**25**	**26**	**34**	**54**	**74**	**734**
Minya (A)	0	1	0	1—10	77	57	14	8	19	27	25	28	24	20	64	128	491
				11—27	43	15	1	3	3	15	19	11	11	8	54	67	250
				28—47	0	0	0	0	0	0	0	1	1	0	0	0	2
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**120**	**72**	**15**	**11**	**22**	**42**	**44**	**40**	**36**	**28**	**118**	**195**	**743**
Assyout (A)	80	0	0	1—10	69	124	56	29	12	12	40	42	30	65	84	42	605
				11—27	9	6	4	2	0	0	3	4	1	0	15	15	59
				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	**78**	**130**	**60**	**31**	**12**	**12**	**43**	**46**	**31**	**65**	**99**	**57**	**664**

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

MARCH—1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	umber in hours of occurrences of wind blowing within the ranges of directions indicated												
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 314	285 / 314	315 / 344	All directions
Luxor	12	0	0	1—10	209	101	22	15	11	18	14	8	7	7	14	55	481
				11—27	109	42	6	1	1	5	1	5	0	1	29	51	2[illegible]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	**318**	**143**	**28**	**16**	**12**	**23**	**15**	**13**	**7**	**8**	**43**	**106**	**732**
Aswan	10	4	0	1—10	14	27	48	91	45	28	22	27	27	52	89	42	512
				11—27	6	13	5	25	32	12	10	4	2	29	48	32	218
				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	**20**	**40**	**53**	**116**	**77**	**40**	**32**	**31**	**29**	**81**	**137**	**74**	**730**
Siwa	5	14	0	1—10	76	35	26	44	44	45	24	21	17	41	61	125	559
				11—27	31	8	0	0	4	5	4	7	2	4	59	42	166
				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	**107**	**43**	**26**	**44**	**48**	**50**	**28**	**28**	**19**	**45**	**120**	**167**	**725**
Dakhla	1	2	0	1—10	187	126	23	9	10	14	21	16	13	16	82	91	608
				11—27	52	7	0	1	0	0	0	4	2	2	42	23	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	**239**	**133**	**28**	**10**	**10**	**14**	**21**	**20**	**15**	**18**	**124**	**114**	**741**
Kharga	2	3	0	1—10	32	45	16	13	43	19	9	13	8	57	159	29	443
				11—27	65	6	0	1	6	14	5	0	2	10	81	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	**97**	**51**	**16**	**14**	**49**	**33**	**14**	**13**	**10**	**67**	**240**	**135**	**739**
Hurghada	2	3	0	1—10	35	49	16	13	43	19	9	12	8	50	161	40	455
				11—27	46	6	0	1	6	14	5	0	2	12	91	101	284
				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**	**55**	**16**	**14**	**49**	**33**	**14**	**12**	**10**	**62**	**252**	**141**	**739**
Quseir	3	1	0	1—10	64	42	17	21	23	21	23	14	17	110	127	32	511
				11—27	100	8	2	4	0	0	0	1	1	13	43	57	229
				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**	**50**	**19**	**25**	**23**	**21**	**23**	**15**	**18**	**123**	**170**	**89**	**740**

UPPER AIR CLIMATOLOGICAL DATA

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

MARCH — 1976

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	Surface	31	1012mb.*	1022mb.*	995m.b.*	31	13.1	16.6	8.4	31	6.8
	1000	31	123	209	15	31	12.5	16.4	7.9	30	7.2
	850	31	1470	1553	1381	31	5.4	13.8	—1.4	30	— 5.6
	700	30	3039	3113	2946	30	—2.3	4.2	—7.6	29	—18.5
	600	31	4244	4329	4097	31	—10.3	— 4.7	—15.9	30	—26.1
	500	30	5629	5733	5450	30	—19.4	—15.1	—24.6	29	—33.9
	400	30	7248	7375	7045	30	—31.6	—27.7	—35.8	28	—43.3
	300	30	9223	9366	8987	29	—45.6	—41.7	—51.0	28	—56.3
	250	29	10419	10569	10183	29	—52.1	—44.6	—57.7	28	—63.7
	200	29	11854	12021	11630	29	—54.7	—43.2	—61.3	24	—65.8
	150	27	13677	13859	13478	27	—58.1	—51.5	—62.0	12	—67.2
	100	25	16212	16364	16009	25	—63.5	—58.4	—68.5	—	—
	70	18	18411	18524	18260	18	—63.3	—60.1	—67.1	—	—
	60	17	19462	19650	19240	17	—62.7	—58.1	—67.5	—	—
	50	17	20497	20610	20336	17	—60.5	—26.7	—64.6	—	—
	40	14	21914	22100	21600	14	—57.7	—54.5	—61.2	—	—
	30	11	23723	23870	23577	11	—56.7	—53.9	—60.1	—	—
	20	7	26305	26458	26117	7	—55.5	—50.7	—59.7	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	31	997m.b.*	1007m.b.*	984m.b.*	31	13.6	23.1	6.9	31	5.7
	1000	30	110	195	22	5	9.3	12.2	6.6	5	2.4
	850	30	1467	1519	1390	29	7.4	19.4	0.1	29	— 5.7
	700	30	3048	3156	2973	30	— 0.7	8.4	— 7.1	30	—13.5
	600	30	4267	4397	4138	30	— 8.2	— 0.7	—12.9	30	—20.2
	500	30	5655	5780	5511	29	—18.1	—11.6	—22.4	29	—29.0
	400	30	7286	7453	7135	30	—29.3	—22.8	—36.2	30	—39.2
	300	30	9282	9507	9077	30	—43.3	—38.0	—47.9	30	—52.2
	250	30	10493	10741	10291	30	—49.4	—43.9	—55.4	30	—58.1
	200	29	11946	12235	11785	29	—52.3	—45.7	—62.0	29	—58.3
	150	29	13789	14109	13661	28	—56.6	—47.8	—61.4	22	—64.6
	100	19	16286	16442	16120	19	—62.7	—56.5	—70.3	12	—65.8
	70	13	18471	18579	18250	13	—63.6	—57.9	—69.4	—	—
	60	9	19464	19700	19240	9	—62.9	—56.3	—67.5	—	—
	50	9	20513	20590	20297	9	—60.5	—54.8	—66.9	—	—
	40	2	22055	22090	22020	2	—59.0	—58.2	—59.8	—	—
	30	2	23752	23800	23715	2	—57.5	—57.3	—57.7	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 U.T.	Surface	31	989m.b.*	995m.b.*	979m.b.*	31	17.4	27.4	12.0	31	0.1
	1000	31	100	151	006	—	—	—	—	—	—
	850	31	1484	1515	1428	31	14.0	25.5	6.5	31	— 4.3
	700	30	3093	3153	3010	30	4.2	11.6	—0.1	30	—11.2
	600	30	4330	4419	4247	30	— 3.8	0.8	—9.0	30	—16.1
	500	30	5741	5820	5678	30	—13.6	— 9.3	—19.2	30	—24.6
	400	29	7407	7504	7333	29	—24.5	—20.8	—29.8	29	—33.5
	300	27	9435	9525	9319	27	—39.2	—35.4	—45.6	26	—48.6
	250	23	10666	10779	10518	23	—45.6	—40.7	— 51.4	23	—55.3
	200	23	12130	12252	11948	23	—53.5	—49.6	—57.8	22	—62.6
	150	22	13939	14003	13780	22	—64.1	—59.6	—70.6	2	—68.1
	100	16	16348	16472	16249	16	—73.7	—67.3	—79.7	—	—
	70	13	18442	18572	18300	13	—70.3	—66.3	—76.0	—	—
	60	12	19408	19550	19210	12	—67.1	—61.2	—73.2	—	—
	50	12	20483	20635	20314	12	—63.4	—60.6	—65.0	—	—
	40	7	21977	22100	21850	7	—59.5	—56.3	—61.9	—	—
	30	7	23700	23852	23521	7	—56.0	—53.1	—58.2	—	—
	20	5	26239	2.403	26025	5	—52.7	—52.4	—58.0	—	—
	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 HIGHEST & LOWEST VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

MARCH — 1976

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	* 1011m.b.	* 1022m.b.	* 998m.b.	30	18.0	24.8	14.5	30	7.7
	1000	30	119	212	11	28	16.6	24.5	13.0	28	6.1
	850	30	1476	1553	1377	30	6.5	17.4	— 0.1	30	—9.4
	700	30	3047	3130	2917	30	—3.4	— 0.2	—12.0	30	—10 0
	600	30	4257	4381	4038	30	—8.8	— 3.7	—17.7	30	—26.9
	500	30	5642	5770	5200	30	—18.8	—14.3	—27.7	30	—36 3
	400	30	7264	7412	7002	30	—31.2	—26.1	—40.0	28	—47.1
	300	30	9241	9416	8944	30	—44.5	—37.3	—50.2	30	—53.1
	250	28	10448	10625	10156	28	—50.8	—44.8	—55.1	27	—63.9
	200	28	11898	12066	11622	28	—53.2	—45.9	—60.8	25	—66.5
	150	27	13736	13905	13502	27	—56.4	—48.7	—62.3	19	—68.4
	100	24	16271	16420	16112	24	—59.6	—55.0	—69.5	3	—72.6
	70	18	18488	18600	18365	18	—62.6	—57.3	—70.7	—	—
	60	13	19465	19630	19320	13	—60.8	—58.1	—66.2	—	—
	50	13	20580	20716	20431	13	—58.5	—53.5	—62.0	—	—
	40	7	21987	22100	21860	7	—55.8	—53.2	—60.0	—	—
	30	5	23775	23802	23631	5	—53.8	—49.3	—57.5	—	—
	20	1	26211	—	—	1	—54.5	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	31	* 996m.b.	* 1005m.b.	* 982m.b.	31	22.2	30.0	14.6	31	2.9
	1000	28	103	192	17	4	17.0	20.3	13.[illegible]	4	—1.6
	850	28	1483	1527	1420	26	9.9	21.0	1.0	26	—2.2
	700	28	3071	3140	2990	28	1.0	8.9	—7.2	28	—16.1
	600	28	4295	4385	4187	28	—6.4	—1.5	—12.6	28	—20.8
	500	28	5697	5812	5500	28	—15.5	—10.0	—22.5	28	—29.5
	400	27	7347	7488	7123	27	—26.8	—20.1	—32.8	27	—40.0
	300	27	9337	9542	9111	27	—40.0	—35.7	—45.0	27	—51.8
	250	26	10589	10770	10351	26	—46.6	—41.1	—51.9	26	—58.2
	200	25	12065	12270	11896	25	—49.0	—44.8	—55.6	25	—60.8
	150	25	13940	14176	13719	25	—52.8	—46.3	—57.0	24	—64.2
	100	22	16507	16765	16327	22	—57.8	—51.5	—64.3	4	—67.6
	70	14	18734	18912	18554	13	—56.8	—51.3	—62.5	—	—
	60	11	19795	19980	19640	11	—54.6	—52.7	—60.9	—	—
	50	11	20930	21061	20769	11	—51.1	—41.9	—56.7	—	—
	40	7	22481	22600	22310	7	—46.8	—35.5	—51.2	—	—
	30	6	24350	24476	24121	6	—41.4	—28.8	—46.6	—	—
	20	3	27158	27212	27112	3	—36.7	—35 7	—37.5	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	30	* 989m.b.	* 994 m.b.	* 978m.b.	30	28.8	40.0	22.0	30	1.3
	1000	30	091	141	002	—	—	—	—	—	—
	850	30	1500	1531	1423	30	16.3	28.0	9.3	30	— 8.3
	700	29	3122	3175	3064	28	6.1	12.8	0.8	28	—15.0
	600	29	4369	4444	4307	29	—1.2	3.2	— 6.5	29	—20.6
	500	28	5798	5886	5734	28	—11.1	— 8.2	—15.7	28	—28.5
	400	28	7474	7553	7396	28	—22.8	—19.0	—27.2	28	—39.1
	300	28	9525	9623	9423	27	—36.4	—32.9	—41.7	27	—52.0
	250	28	10775	10888	10661	27	—42.3	—36.9	—48.3	27	—57.5
	200	28	12257	12393	12122	28	—51.5	—46.3	—55.8	28	—65.1
	150	26	14081	14245	13975	25	—62.7	—57.2	—66.9	2	—69.1
	100	26	16513	16675	16413	26	—72.8	—64.8	—76.4	—	—
	70	20	18619	18773	18476	19	—69.6	—64.8	—79.7	—	—
	60	15	19597	19742	19500	15	—65.8	—62.8	—68.5	—	—
	50	15	20682	20817	20559	15	—60.9	—56.5	—64.0	—	—
	40	12	22217	22340	22070	12	—56.2	—53.0	—59.8	—	—
	30	11	23944	24055	23797	11	—52.3	—49.8	—54.7	—	—
	20	9	26636	26726	26518	9	—48.6	—43.3	—56.1	—	—
	10	1	31406	—	—	1	—39.3	—	—	—	—

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

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

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

MARCH — 1976

	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 (A)	2530 (31)	749 (31)	—13.6 (30)	3660	653	—35.1	1250	869	—31.0	11952 (28)	229 (28)	—55.8 (28)	18470	69	—67.1	8700	310	—50.0	10589	245	255	125
0000 U.T.	Helwan . . .	2788 (30)	727 (30)	—10.6 (30)	4020	625	—12.9	1190	887	— 5.7	11167 (25)	237 (25)	—53.2 (25)	17130	88	—68.9	8320	336	—45.8	8710	328	290	148
0000 U.T.	Aswan . . (A)	3791 (30)	643 (30)	—13.6 (30)	4500	590	—21.4	3040	704	—08.4	16483 (11)	099 (11)	—75.6 (11)	17330	084	—71.6	15410	117	—66.9	2175	762	320	40
1200 U.T.	M. Matruh (A)	2817 (30)	723 (30)	—17.7 (30)	3780	643	—13.2	1408	851	—5.1	10973 (27)	236 (27)	—54.6 (27)	17250	87	—68.5	7900	358	—44.9	9789	290	255	110
1200 U.T.	Helwan . . .	3193 (28)	692 (28)	—14.7 (28)	4358	600	—14.3	1990	798	—2.5	10848 (24)	245 (24)	—48.5 (24)	12570	184	—54.8	8120	351	—39.4	11590	218	310	163
1200 U.T.	Aswan . . (A)	4123 (29)	620 (29)	—17.5 (29)	4820	571	—25.1	3260	690	—02.6	10081 (17)	109 (17)	—73.2 (17)	17560	084	—67.5	14590	137	68.1	9110	315	270	150

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 1976

Time	Pressure Surface Millibar.	Wind within 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	10	1	15	2	06	4	12	3	11	0	—	2	10	2	10	4	05	6	07	3	16	0	—	0	31	9
	1000	5	13	2	10	3	08	1	23	3	11	0	—	2	11	2	11	1	08	5	10	3	15	0	—	0	26	11
	850	2	08	3	16	4	12	1	09	0	—	1	14	2	19	2	19	2	12	5	22	4	21	1	14	0	25	16
	700	1	08	1	11	0	—	—	—	0	—	1	02	1	09	1	09	3	32	7	22	5	21	3	17	0	22	20
	600	0	—	0	—	0	—	—	—	0	—	—	—	1	36	1	36	4	32	8	24	7	32	2	11	1	23	27
	500	0	—	0	—	0	—	—	—	0	—	—	—	—	—	—	—	2	40	12	39	7	51	2	23	0	23	41
	400	0	—	0	—	0	—	—	—	0	—	—	—	—	—	—	—	1	60	11	51	8	53	1	52	0	21	52
	300	0	—	0	—	0	—	—	—	0	—	—	—	—	—	—	—	1	70	9	66	1	53	0	—	0	11	65
	250	0	—	0	—	0	—	—	—	0	—	—	—	—	—	—	—	1	93	3	88	2	64	0	—	0	6	81
	200	0	—	0	—	0	—	—	—	0	—	—	—	—	—	—	—	0	—	2	70	1	104	0	—	0	3	85
	150	0	—	0	—	0	—	—	—	0	—	—	—	—	—	—	—	0	—	1	68	0	—	0	—	0	1	68
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	5	9	8	10	0	—	3	—	0	—	1	14	2	23	1	20	1	18	1	14	5	22	3	15	0	30	15
	1000	2	12	3	8	1	11	2	—	0	—	1	13	1	20	1	20	1	18	2	26	4	21	2	14	1	22	16
	850	1	8	0	—	1	11	1		1	35	1	21	2	13	3	21	2	12	5	30	4	14	1	21	0	22	19
	700	2	10	0	—	1	11	0		0	—	2	29	2	24	2	38	5	20	7	28	2	21	1	8	0	24	23
	600	1	10	0	—	0	—	0		0	—	1	3	2	26	2	60	7	36	7	27	2	30	1	30	0	23	31
	500	1	13	0	—	0	—	0		0	—	1	45	0	—	3	51	10	38	4	31	3	47	1	33	0	23	39
	400	0	—	0	—	0	—	0		0	—	1	59	0	—	2	62	9	41	5	43	2	56	1	14	0	20	44
	300	0	—	0	—	0	—	0		0	—	1	63	0	—	1	64	8	60	3	50	0	—	0	—	0	13	58
	250	0	—	0	—	0	—	0		0	—	0	—	0	—	1	60	2	71	3	88	0	—	0	—	0	6	78
	200	0	—	0	—	0	—	0		0	—	0	—	0	—	0	—	1	81	0	—	0	—	0	—	0	1	81
	150	0	—	0	—	0	—	0		0	—	0	—	0	—	0	—	1	70	0	—	0	—	0	—	0	1	70
	100	—	—	—	—	—	—	—		—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within 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 2. *(contd.)*— NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

HELWAN — MARCH 1976

Time	Pressure Surface (Millibar)	Wind within 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	5	6	12	6	12	2	5	1	5	0	—	0	—	1	7	3	4	1	12	1	10	4	8	3	31	8
	1000	0	—	1	17	2	22	1	2	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	5	13
	850	1	10	3	12	2	24	2	10	3	6	0	—	1	10	2	12	0	—	3	21	6	20	7	22	0	30	17
	700	2	36	3	17	0	—	0	—	0	—	0	—	0	—	1	6	1	21	10	38	5	21	8	22	0	30	27
	600	3	51	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	30	6	59	10	30	9	37	0	30	38
	500	2	44	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	28	3	47	10	46	8	33	0	24	41
	400	2	57	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	50	12	62	6	43	0	22	55
	300	1	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	52	10	79	5	51	0	17	69
	250	1	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	83	3	82	4	64	0	9	69
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	73	2	114	0	7	84
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	90	0	—	0	4	90
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	4	12	7	15	0	—	1	6	1	3	2	8	0	—	4	12	3	14	3	9	1	13	4	8	1	31	11
	1000	0	—	1	24	1	22	0	—	0	—	0	—	0	—	0	—	1	7	0	—	0	—	1	5	0	4	14
	850	1	5	4	13	2	13	1	12	3	6	1	11	2	2	1	15	4	16	4	25	1	10	4	20	0	28	14
	700	3	16	2	8	0	—	0	—	0	—	0	—	0	—	0	—	4	18	8	33	6	32	5	25	0	28	26
	600	3	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	35	13	42	5	34	6	35	0	28	36
	500	2	36	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	29	7	50	8	52	7	49	0	25	48
	400	1	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	27	3	87	10	62	5	54	0	20	60
	300	1	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	1	100	9	90	3	84	0	15	82
	250	1	35	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	38	0	—	7	99	2	97	0	11	88
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	0	—	4	112	2	86	0	7	91
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	82	1	80	0	—	0	3	82
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within 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 — MARCH 1976

Time	Pressure Surfaso Millibar	Wind within 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	16	10	2	08	2	08	1	05	1	08	2	06	0	—	2	10	0	—	0	—	3	11	2	08	0	31	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	11	14	3	13	0	—	2	10	1	04	0	—	2	12	2	12	0	—	2	14	4	14	4	16	0	31	14
	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	16	09	4	08	0	—	0	—	2	08	0	—	2	11	0	—	0	—	1	02	2	18	3	14	0	30	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	14	5	13	3	10	2	10	0	—	1	08	2	14	0	—	1	26	1	05	7	13	4	12	0	29	13
	700	0	—	3	16	1	31	0	—	1	—	0	—	0	—	3	18	2	16	5	25	7	26	1	30	0	23	22
	600	0	—	0	—	2	33	0	—	0	—	0	—	0	—	1	15	3	31	9	40	2	44	0	—	0	17	37
	500	0	—	0	—	1	55	0	—	0	—	0	—	0	—	0	—	6	52	8	54	1	36	0	—	0	16	52
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	10	73	3	61	0	—	0	13	67
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	—	9	91	3	77	0	—	0	13	85
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	62	9	102	1	89	0	—	0	10	100
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	119	2	88	0	—	0	8	112
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	99	0	—	0	—	0	5	99
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	61	0	—	0	—	0	2	61
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within the range of direction during the mon.

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

MONTHLY REVIEW OF AGROMETEOROLOGICAL STATIONS

MERSA MATRUH — MARCH 1976

The mean daily air temperature was below normal and the mean daily relative humidity was above normal. The total monthly rainfall was 7.4 mm. against 11.7 mm. for normal.

Maximum air temperatures were below normal the whole month apart from three short warm khamsin spells on the 15th, 18th and 22nd. The first spell yielded the highest maximum air temperature (25.7°C) on the 15th. The lowest maximum air temperature was 15.6°C reported on the 2nd. Minimum air temperatures were below normal most days of the month. The highest minimum air temperature was 14.0°C (on the 28th), and the lowest minimum was 5.1°C (on the 2nd). The significant weather phenomena during the month were sandstorms on the 15th and 22nd and rising sand on the 7th, 8th, 11th, 12th, 13th, 18th, 23rd and 29th.

The highest maximum soil temperatures were lower than the corresponding values of March 1975 except those at 10 and 100 cm. which were higher, the departures varied between 0.2° and 1.0°C. The lowest minimum soil temperature was lower than March 1975 at 2 cm. depth by 0.1°C, and higher at all other depths with departures between 0.4° and 1.0°C.

The mean daily actual sunshine duration was higher than normal by 0.2 hour. The mean daily wind speed at 1.5 m. height was higher by 0.4 m./sec. than the corresponding value of March 1975.

THARIR — MARCH 1976

The mean daily air temperature was below normal and the mean daily relative humidity was slightly above normal. The total monthly rainfall was 1.7 mm. against 2.8 mm. for normal.

The month started with a cold wave which persisted till the 5th. This wave yielded the lowest maximum air temperature (17.9°C) on the 1st, and was mainly characterized by minimum air temperatures below 0°C at 5 cm. above both the dry and grass field which are indicated in the following :

Date				
Min. air temp. at 5 cm. above the dry field	1 —1.5	2 —3.0	3 —1.5	4 —0.4

date				
Min. air temp. at 5 cm. above the grass field	1 —2.5	2 —4.0	3 —2.8	4 —1.7

During the rest of the month weather was changeable intervended by fourt khamsin spells on the (15th), (18th), (26th-28th) and (30th, 31st). The last spell yielded the highest maximum air temperature (32.2°C) on the 30th.
The significant weather phenomena during the month were rising sand on the 12th, 13th, 14th 19th and 30th.

The highest maximum soil temperatures werehigher than average at depths till 50 cm. with departures between 3.5°C (at both 2 and 5 cm.) and 0.5 °C (at 50 cm.), and the same as average at 100 cm. depth.

The lowest minimum soil temperatures were lower than average at all depths with departures between 3.6°C (at 5 cm.) and 01°C (at 100 cm).

The mean daily actural sunshine duration, was lower than average by 0.4 hour. The mean daily wind speed was slightly higher than average.

BBHTIM — MARCH 1976

The mean daily air temperature and relative humidity were nearly the same as average. The total monthly rainfall was only 0.3 mm. against 2.8 mm. for average.

This month started with a cold wave which persisted till the 5th and yielded the lowest maximum air temperature (16.7°C) on the 1st. This wave was characterized by minimum air temperatures below 0°C at 5 cm. above both the dry and grass fields which are indicated in the following.

Date	1	2	3	4	5
Min. air temp. at 5 cm. above the dry field	—4.8	—4.4	—[illegible].2	—0.8	—0.5

Date	1	2	3	4	5
Min. air temp. at 5 cm. above the dry field	—4 8	—3.6	k-k3.1	—1.0	—0.8

During the rest of the month weather was changeable, intervened by four short and light khamsin waves on the 7th, 11th, 18th and (30th and 31st). The last wave yielded both the highest maximum air temperature (31.8°C) and the highest minimum (15.6°C) on the 30th.

The significant weather phenomena during the month were rising sand on the 12th, 13th, 14th, 19th and 30th.

The highest maximum soil temperatures were higher than average at depths till 50 cm. with departures between 3.5°C (at both 2 and 5 cm.) and 0.5°C (at 50 cm.), and the same as average at 100 cm. depth. The lowest minimum soil temperatures were lower than average at all depths with departures between 3.6°C (at 5 cm.) and 0.1°C (at 100 cm.).

The mean daily actual sunshine duration was lower than average by 0.4 hour. The mean daily wind speed at 5.1 m. height and pan evaporation were slightly higher than average.

KHARGA — MARCH 1976

The mean daily air temperature and relative humidity were above normal.

Weather was generally mild, apart from three short khamsin heat wapes in the periods : (7th and 8th), (11th and 12th) and (28th-30th). The last wave yielded both the highest maximum air temperature (37.8°C) on the 29th, and the highest minimum (27.0°C) on the 30th. The significant weather phenomena during the month was rising sand on the 1st, 9th, 11th, 12th, 13th, 16th, 23rd, 30th and 31st.

The highest maximum soil temperatures were higher than average at all depths with departures between 4.5°C (at 10 cm.) and 0.1°C (at 100 cm.). The lowest minimum soil temperatures were higher than average at 2 cm. depth by 0.8°C, and lower at all other depths with departures between 0.2°C (at 5 cm.) and 1.9°C and (at 10 cm.).

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaporation were lower than average by 2.1 hour, 0.7 m./sec. and 0.56mm. respectively.

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

MARCH — 1976

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 . .	18.7	10.1	14.3	12.4	16.2	24.0	24.0	24.0	21.2	10.6	0.7	0.03	0.0	0.0	0.0	0.0
Tahrir	23.8	8.1	15.3	11.5	18.8	24.0	23.9	23.1	19.8	11.9	4.8	0.7	0.1	0.0	0.0	0.0
Bahtim	23.3	7.8	15.6	11.7	19.2	24.0	24.0	22.8	19.2	12.4	6.0	0.9	0.1	0.0	0.0	0.0
Kharga	27.7	15.7	21.7	19.7	23.6	24.0	24.0	24.0	24.0	21.5	15.3	6.1	1.1	0.2	0.0	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

MARCH — 1976

STATION	Max. Temp. at 1½ metres				Min. Temp. at 1½ metres				Min. Temp. at 5 cms. above ground			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Nalue	Date
Mersa Matruh . . .	25.7	15	15.6	2	14.0	28	5.1	2	1.3	2	—	—
Tahrir	32.2	30	17.9	1	13.2	12	—0.4	2	—3.0	2	—4.0	2
Bahtim	31.8	30	16.7	01	15.6	30	—0.5	02	—4.8	01	—4.8	01
Kharga	37.8	29	22.0	4	27.0	30	8.4	4	2.6	4	—	—

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

MARCH — 1976

STATION	(Solar+Sky) Radiation gm. cal/cm²	Duration of Bright Sunshine (hour .)			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 .	353.0	252.5	371.7	68	75	62	21	15	9.1	9.4	13.6	30	4.0	15	5.0	—	7.4	2.7	5
Tahrir. . .	477.6	254.9	371.7	69	66	42	20	30	8.3	8.3	13.6	29	4.0	2	4.8	5.56	1.7	1.2	20
Bahtim . .	446.5	243.7	372.0	65	60	37	14	30	7.5	7.5	13.2	26	3.8	2	6.4	6.75	0.3	0.3	19
Kharga . .	524.5	261.1	372.8	70	35	28	11	29	6.6	7.0	12.6	28	2.7	2	11.6	11.43	0.0	0.0	—

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

MARCH— 1976

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil tmperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	30
M. Matruh	H	29.9	28.5	24.5	20.8	18.6	18.4	19.5	—	—	—	—	—	—	—	—	—
	L	7.4	7.8	9.8	13.0	15.2	16.2	18.9	—	—	—	—	—	—	—	—	—
Tahrir	H	39.2	34.5	30.7	25.2	21.6	20.1	19.9	20.7	26.3	24.0	22.3	21.0	19.1	18.7	18.7	—
	L	5.7	5.5	7.3	12.6	15.1	16.6	18.7	20.5	7.9	8.3	9.3	11.4	13.8	15.1	16.5	—
Bahtim.	H	44.4	35.6	29.0	24.3	21.6	20.8	22.3	23.6	26.5	22.8	20.8	19.2	18.0	17.2	18.3	—
	L	7.7	7.4	10.6	15.3	17.6	19.3	21.8	23.2	6.7	7.1	9.0	11.1	13.7	15.4	18.1	—
Kharga	H	49.0	42.3	37.3	31.4	26.1	24.8	25.0	26.8	—	—	—	—	—	—	—	—
	L	8.6	11.2	13.4	18.0	20.7	22.3	24.5	26.3	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

MARCH — 1976

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 . .	4.0	2.7	5.2	30	21	12	8	5	3	1	44	15
Tahrir . .	2.4	1.7	3.2	29	15	6	2	0	0	0	37	13
Bahtim. . . .	2.7	1.8	3.7	30	23	10	4	0	0	0	37	19
Kharga . . .	2.7	2.1	3.4	27	19	6	2	1	0	0	46	12

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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 several 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 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 19 NUMBER 4

APRIL, 1976

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

APRIL 1976

Changeable weather with four variant khamsin heat waves, short in general.

PRESSURE DISTRIBUTION

Five depressions passed over East Mediterranean and north of Egypt on the 9th, 13th, 16th, 21st & 27th.

High pressures established in their rear.

The mean atmospheric pressure was slightly below normal in the north and above normal in the south.

SURFACE WIND

Light to moderate N ly & NW ly winds were the most prevailing. In association with depressions winds were S ly & SW ly, fresh or strong at times.

TEMPERATURE

This month was intervened by four khamsin heat waves generally of short duration with their peaks round the 9th, 15th, 21th, & 27th. The second wave was the most intense in Upper Egypt ; while the last was the most intense in Lower & Middle Egypt.

Daily Maximum air temperatures were subject to moderate or large departures above normal during heat waves, and moderate departures below normal otherwise.

Daily Minimum air temperature variations were more or less similar to maximum temperature variations.

The highest and lowest maximum air temperatures were respectively 45.2°C at Luxor on the 15th and 17.0°C at Ras Elhikma on the 12th.

The highest and lowest minimum air temperatures were respectively 27.2°C at Abo Simbel on the 16th and 6.8°C at Beni Suef on the 6th.

PRECIPITATION

Light rain was reported over scattered places in north for few days, mainly during the second week.

The monthly rainfall amounts were in general slightly above normal.

The maximum daily rainfall was 6.6 mm. at Damietta on the 12th.

The maximum monthly rainfall was 8.5 mm. at the same station

OTHER WEATHER PHENOMENA

Scattered rising sand and local sandstorms were reported in association with Khamsin waves, mainly during the second and third weeks.

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

Cairo, March 1979

Chairman (M. S. ELD IN HARB)

Board of Directors

SURFACE DATA

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

APRIL — 1976

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mm Maan
			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	%	
Sallum	1013.7	0.0	24.2	+0.5	13.6	0 0	18.9	18.4	+ 0.3	13.8	+ 0.1	59	+ 3	—	—	—	7.9
Mersa Matruh (A)	1014.0	— 0.4	22.1	—0.6	12.0	0.0	17.0	17.3	— 0.1	13.3	— 0.2	67	+ 3	258.4	388.4	67	5.9
Alexandria. . (A)	1014.0	— 0.2	24.2	+0.2	13.9	+ 0.4	19.0	18 6	+ 0.3	14.3	— 0.3	62	— 3	259.2	388.4	67	4.3
Port Said	1012.8	— 0.9	24.5	+1.9	15.0	— 1.0	19.8	19.0	+ 0.2	15.2	— 0.3	67	— 2	278.2	388.3	72	4.1
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1013.2	— 0.3	26.6	— 1.1	10.8	— 0.1	18.7	18.1	— 0.7	13.7	— 0.1	63	+ 9	271.7	387.5	70	5.2
Cairo . . . .(A)	1013.7	+ 0.2	28.2	— 0.1	14.7	+ 0.6	21.4	21.2	+ 0.3	14.2	— 0.2	47	+ 2	—	—	—	14.9
Fayoum	—	—	30.3	+ 0 5	12.9	— 0.3	21.6	21.2	— 0.2	14.4	+ 0.2	48	+ 7	—	—		8.5
Minya . . . .(A)	1013.7	+ 0.9	30.5	— 0.1	13.1	+ 1.1	21.8	21.9	+ 0.6	14.3	+ 0.4	44	+ 4	277.7	385.0	72	12.0
Assyout . . .(A)	1013.3	+ 1.1	30.5	— 1.2	14.7	— 0.3	22.6	22.7	— 0.9	12.7	— 0.7	28	+ 3	—		—	16.2
Luxor . . .(A)	1011.3	+ 0.7	34.6	0.0	16.7	+ 1.0	25.6	25.6	— 0.1	15.3	+ 0.3	30	+ 4	—	-	—	10.3
Aswan . . . .(A)	1010.8	+ 0.7	35.4	+ 0.4	19.2	+ 1.7	27.3	27.2	+ 0.5	14.4	+ 0.9	21	+ 8	297.4	380.7	78	22.6
Siwa	1012.8	— 0.5	29 3	— 0.5	14.0	+ 1.6	21.6	21.9	+ 0.2	13.9	+ 0.8	39	+ 7	261.0	385.9	67	13.3
Bahariya	1012 9	+ 0.1	30.1	0.0	14.4	— 0.5	22.2	22.4	— 0.1	12.9	— 0.3	31	+ 2	—	—	—	12.8
Farafra	1014.1	+ 0.1	31.0	— 0.2	14.7	+ 1.4	22.8	22.9	+ 0.4	12.6	+ 0.1	26	+ 1	—	—	—	15.1
Dakhla	1012.9	+ 0.5	32.3	— 0.4	13.4	— 0.5	22.8	23.0	— 0.6	13.4	+ 0.3	32	+12	—	—	—	17.6
Kharga	1011.9	+ 0.7	33.2	+ 0.1	20 9	+ 5.3	27.0	26.9	+ 1.8	15.5	+ 2.2	30	+ 8	94.3	382.2	77	15.4
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . .	1011.9	+ 0.9	26.8	+ 0.2	17.4	+ 1.2	22.1	22.4	+ 0.1	16.0	+ 0.3	48	+ 1	272.1	383.9	70	10.7
Quseir	1011.4	+ 0.2	26.6	— 0.5	19.4	0.0	23.0	23.0	— 0.4	16.9	+ 0.3	51	+ 5	—	—	—	8.3

TABLE A2.— MAXIMUM AND MINIMUM AIR TEMPERATURE

APRIL — 1976

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	34.5	24	18.0	13	3	1	0	0	0	11.8	—	18.0	26	10.9	12	0	0	0	0
Mersa Matruh (A)	33.4	8	17.8	3	6	2	0	0	0	10.4	—	16.0	15	8.5	7	7	0	0	0
Alexandria (A)	35.4	26	20.0	12	8	4	1	0	0	12.3	—	17.8	15	9.2	9	1	0	0	0
Port Said (A)	36.4	27	21.4	18	7	3	1	0	0	14.8	—	18.7	26,27	12.1	9	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	32.6	21	21.8	4	16	6	0	0	0	—		16.8	15	7.5	3	12	0	0	0
Cairo (A)	38.2	26	22.6	5	12	7	2	0	0	—		20.8	26	11.5	2	0	0	0	0
Fayoum	—	—	—	—	—	—	—	—	—	10.1	—	—	—	—	—	—	—	—	—
Minya (A)	43.0	27	25.0	5	29	14	5	1	0	11.3		20.8	15	7.5	6	5	0	0	0
Assyout (A)	41.5	27	22.8	5	26	16	6	2	0	5.9		25.6	15	8.5	7	3	0	0	0
Luxor (A)	45.2	15	26.6	2	30	24	14	4	1	10.2		26.0	16	8.8	8	1	0	0	0
Aswan (A)	43.7	15	28.6	7	30	27	13	4	0	—		25.2	28	13.0	8	0	0	0	0
Siwa	39.2	28	20.8	12	24	14	2	0	0	12.7		21.6	15	8.0	7	6	0	0	0
Bahariya	39.5	26	23.4	5	28	14	4	0	0	13.8		23.4	15	9.1	5	3	0	0	0
Farafra	41.2	26	23.2	1	29	16	8	1	0	13.1		24.0	27	10.0	19	0	0	0	0
Dakhla	43.0	27	24.5	5	28	18	10	3	0	13.4		26.0	15	5.8	7	6	0	0	0
Kharga	44.2	15	26.1	5	30	20	9	4	0	19.5		26.5	28	14.6	7	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	30.9	27	23.8	19	27	2	0	0	0	—		23.1	15	13.4	6	0	0	0	0
Quseir	31.8	27	24.0	6	22	1	0	0	0	16.8		23.2	16	15.2	6	0	0	0	0

Table A 3. – SKY COVER AND RAINFALL

APRIL — 1976

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	3.1	3.1	3.5	2.7	2.9	5.9	+3.3	4.2	11	0	3	2	0	0	0	0
Mersa Matruh (A)	1.6	3.7	3.5	2.1	2.8	2.9	+0.6	2.7	10	3	2	1	0	0	0	0
Alexandria . . (A)	3.0	3.7	4.1	3.7	3.7	6.0	+3.1	2.6	22	0	4	2	0	0	0	0
Port Said . . (A)	2.3	2.9	2.8	2.2	2.6	5.7	+3.0	4.7	12	0	2	2	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1.3	2.0	3.6	2.0	2.3	6.5	+ 4.5	3.4	11	0	3	2	0	0	0	0
Cairo . . . . (A)	2.1	2.6	3.4	2.6	2.7	1.2	+ 0.3	1.0	11	1	2	1	0	0	0	0
Fayoum	—	2.1	2.7	2.2	—	—	—	—	—	—	—	—	—	—	—	0
Minya	1.6	2.8	2.6	3.3	2.6	0.0	— 0.4	0.0	—	0	0	0	0	0	0	0
Assyout . . . (A)	1.3	2.5	2.5	2.1	2.1	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Luxor . . . . (A)	1.8	2.2	2.7	2.5	2.3	Tr.	0.0	Tr.	1,2	2	0	0	0	0	0	0
Aswan . . . . (A)	1.3	1.2	1.6	1.3	1.4	Tr.	— 0.7	Tr.	2	1	0	0	0	0	0	0
Siwa	1.7	1.2	1.5	1.4	1.4	0.3	— 0.7	0.3	12	0	1	0	0	0	0	0
Bahariya	1.1	2.6	3.3	2.7	2.3	Tr.	— 0.5	Tr.	12	1	0	0	0	0	0	0
Farafra	—	3.0	4.1	3.2	—	T.r	— 0.5	Tr.	1,2,3	4	0	0	0	0	0	0
Dakhla	1.2	1.3	1.5	0.9	1.2	0.0	0.2	0.0	—	0	0	0	0	0	0	0
Kharga	0.6	1.7	2.6	1.2	1.5	T.r	0.0	Tr.	1	1	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	2.7	2.1	3.1	2.6	2.6	0.1	0.0	0.1	3	0	1	0	0	0	0	0
Quseir	1.5	2.2	2.7	1.7	2.1	T.r	— 0.1	rT	1,2,3	3	0	0	0	0	0	0

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

APRIL — 1976

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	3	0	0	0	0	0	1	0	0	0	9	1	0	11	1
Mersa Matruh (A)	2	0	0	0	0	0	7	1	3	0	10	2	0	14	1
Alexandria (A)	3	0	0	0	0	0	2	0	2	0	4	1	0	5	3
Port Said (A)	2	0	0	0	0	0	0	0	0	0	5	2	0	16	3
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	3	0	0	0	0	0	2	0	2	0	2	0	0	17	0
Cairo (A)	2	0	0	0	0	0	12	1	9	0	11	3	1	12	3
Fayoum	0	0	0	0	0	0	0	0	1	0	5	0	0	15	4
Minya (A)	0	0	0	0	0	0	5	0	2	0	7	0	0	14	3
Assyout (A)	0	0	0	0	0	0	0	0	1	0	10	2	0	17	2
Luxor (A)	0	0	0	0	0	0	0	0	11	0	14	2	0	17	4
Aswan (A)	0	0	0	0	0	0	0	0	3	0	10	2	1	21	1
Siwa	1	0	0	0	0	0	0	0	3	0	6	0	0	21	0
Bahariya	0	0	0	0	0	0	0	0	0	0	5	0	0	13	2
Farafra	0	0	0	0	0	0	0	0	4	1	4	2	0	12	10
Dakhla	0	0	0	0	0	0	0	0	0	0	5	0	0	23	2
Khrga	0	0	0	0	0	0	0	0	0	0	12	0	0	21	1
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1	0	0	0	0	0	3	0	1	0	8	2	0	16	3
Quseir	0	0	0	0	0	0	0	0	0	0	4	0	0	17	3

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

APRIL — 1976

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
				1—10	35	45	66	48	18	12	26	11	22	47	85	123	538
				11—27	0	1	8	8	3	3	0	5	24	21	41	41	155
El Sallum.	7	17	0	28—47	0	0	0	0	0	0	0	0	3	0	0	0	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**35**	**46**	**74**	**56**	**21**	**15**	**26**	**16**	**49**	**68**	**126**	**164**	**696**
				1—10	20	15	22	30	13	14	21	28	60	60	46	54	383
				11—27	1	7	10	62	21	10	10	12	17	14	79	67	310
Mersa Matruh . . (A)	17	0	0	28—47	0	0	0	1	0	0	0	3	4	2	0	0	10
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**21**	**22**	**32**	**93**	**34**	**24**	**31**	**43**	**81**	**76**	**125**	**121**	**703**
				1—10	63	42	45	32	39	21	16	7	19	18	61	98	461
				11—27	5	19	25	12	0	1	4	11	21	32	65	59	254
Alexandria	5	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	**68**	**61**	**70**	**44**	**39**	**22**	**20**	**18**	**40**	**50**	**126**	**157**	**715**
				1—10	46	41	77	55	26	23	26	26	46	60	71	50	547
				11—27	16	4	16	27	2	0	1	4	5	14	35	30	154
Tanta	19	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	**62**	**45**	**93**	**82**	**28**	**23**	**27**	**30**	**51**	**74**	**106**	**80**	**701**
				1—10	49	64	47	17	12	4	4	16	40	63	55	56	427
				11—27	15	38	41	12	13	17	24	19	23	31	30	14	277
Cairo . . . . (A)	15	1	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	**64**	**102**	**88**	**29**	**25**	**21**	**28**	**35**	**63**	**94**	**85**	**70**	**704**
				1—10	214	163	23	10	15	17	36	51	39	27	39	31	665
				11—27	0	6	1	0	0	0	0	8	4	4	3	3	29
Fayoum.	6	11	9	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	**214**	**169**	**24**	**10**	**15**	**17**	**36**	**59**	**43**	**31**	**42**	**34**	**694**
				1—10	212	60	4	0	5	73	20	20	10	11	16	52	483
				11—27	119	35	4	0	2	20	12	4	2	4	4	23	229
Minya. . . . . (A)	7	1	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	**331**	**95**	**8**	**0**	**7**	**93**	**32**	**24**	**12**	**15**	**20**	**75**	**712**
				1—10	77	36	6	0	16	30	29	20	21	25	36	69	365
				11—27	142	36	0	0	2	18	38	21	7	0	17	71	352
Asyout . . (A)	1	0	0	28—47	0	0	0	0	0	0	0	1	0	0	0	1	2
				≥48	0	0	0	0	0	0	0	0	0	0	0	114	0
				All speeds	**219**	**72**	**6**	**0**	**18**	**48**	**67**	**42**	**28**	**25**	**53**		**719**

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

APRIL — 1976

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	93	0	0	1—10	70	47	34	17	10	18	47	35	29	40	85	99	531
				11—27	15	5	5	1	1	3	7	5	0	1	9	44	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	**85**	**52**	**39**	**18**	**11**	**21**	**54**	**40**	**29**	**41**	**94**	**143**	**627**
Aswan	4	2	0	1—10	129	95	16	8	16	38	31	16	8	11	6	49	423
				11—27	170	32	0	0	3	10	12	1	2	0	6	47	284
				28—47	7	0	0	0	0	0	0	0	0	0	0	0	7
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**306**	**128**	**16**	**8**	**19**	**48**	**43**	**17**	**10**	**11**	**12**	**96**	**714**
Siwa	24	4	1	1—10	44	35	44	111	50	26	21	16	11	48	72	49	527
				11—27	11	9	3	19	33	8	4	9	5	13	21	29	164
				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	**55**	**44**	**47**	**130**	**83**	**34**	**25**	**25**	**16**	**61**	**93**	**78**	**691**
Dakhla	3	5	0	1—10	41	49	44	43	41	48	36	25	20	34	49	129	559
				11—27	40	28	2	0	1	2	18	10	3	2	9	38	153
				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**	**77**	**46**	**43**	**42**	**50**	**54**	**35**	**23**	**36**	**58**	**167**	**712**
Kharga	4	1	0	1—10	99	46	10	17	19	26	38	15	7	18	35	109	439
				11—27	197	46	0	0	0	0	5	3	0	1	1	23	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	**296**	**92**	**10**	**17**	**19**	**26**	**43**	**18**	**7**	**19**	**36**	**132**	**715**
Hurghada	5	6	0	1—10	14	26	16	30	36	29	6	6	4	20	102	34	323
				11—27	87	14	2	4	33	7	0	0	0	2	74	163	386
				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**	**40**	**18**	**34**	**69**	**36**	**6**	**6**	**4**	**22**	**176**	**197**	**709**
Quseir	2	0	0	1—10	62	24	18	16	27	29	24	15	12	58	111	63	459
				11—27	89	17	1	0	1	9	0	0	0	0	19	109	245
				28—47	3	0	0	0	0	0	0	0	0	0	0	12	15
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**154**	**41**	**19**	**16**	**28**	**38**	**24**	**15**	**12**	**58**	**130**	**184**	**719**

UPPER AIR CLIMATOLOGICAL DATA

TABLE B 1—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHEST & LOWEST VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

APRIL— 1976

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Matruh 0000 U.T.	Surface	30	1011m.b.*	1019m.b.*	1005m.b.*	30	15.5	22.8	10.8	30	10.5
	1000	30	124	188	028	30	14.6	23.1	10.5	30	9.8
	850	30	1489	1531	1419	30	9.9	20.6	2.5	30	— 3.1
	700	30	3115	3182	3011	27	0.2	6.7	— 6.2	30	—14.6
	600	30	4295	4393	4190	30	— 8.1	— 3.7	—12.2	30	—22.4
	500	29	5087	5805	5576	29	—17.6	—14.0	—21.5	29	—28.9
	400	28	7321	7451	7206	28	—29.2	—25.3	—34.2	28	—39.3
	300	27	9315	9458	9191	27	—44.0	—39.8	—48.0	26	—53.5
	250	25	10519	10670	10381	25	—51.4	—44.0	—57.7	25	—60.4
	200	25	11951	12106	11811	25	—56.4	—48.9	—62.0	16	—65.2
	150	24	13773	13937	13644	24	—58.8	—54.4	—69.1	12	—68.9
	100	20	16277	16414	16153	20	—64.4	—60.0	—69.2	—	—
	70	9	18453	18604	18355	9	—66.7	—62.1	—73.0	—	—
	60	6	19428	19500	19370	6	—63.7	—61.9	—66.1	—	—
	50	4	20536	20674	20460	4	—62.6	—61.8	—64.0	—	—
	40	3	21930	22040	21750	3	—60.9	—59.9	—61.2	—	—
	30	2	23685	23704	23666	2	—60.6	—57.5	—63.7	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	30	997m.b.*	1003m.b.*	986m.b.*	30	17.2	28.7	11.9	30	7.2
	1000	29	115	167	017	8	13.2	14.8	11.9	8	8.1
	850	29	1491	1539	1440	29	12.2	21.7	3.8	29	— 2.2
	700	29	3091	3174	3036	29	2.5	13.2	— 3.5	29	— 9.4
	600	28	4321	4420	4226	28	— 5.7	1.8	—12.0	28	—16.3
	500	28	5720	5829	5611	28	—15.0	— 6.1	—22.0	28	—26.6
	400	28	7391	7595	7221	28	—26.9	—20.1	—31.1	28	—36.0
	300	27	9382	9573	9186	27	—42.4	—37.2	—50.0	27	—51.1
	250	27	10582	10761	10382	27	—49.0	—36.9	—54.6	27	—55.4
	200	27	12046	12262	11830	27	—53.3	—42.4	—61.8	25	—62.0
	150	25	13866	14074	13679	25	—57.7	—47.6	—62.1	19	—56.4
	100	21	16381	16602	16218	21	—64.7	—52.0	—70.6	—	—
	70	16	18540	18632	18395	16	—66.9	—59.5	—74.3	—	—
	60	11	19513	19600	19390	11	—65.0	—62.4	—69.2	—	—
	50	11	20597	20985	20462	11	—62.5	—55.6	—67.0	—	—
	40	9	22074	22150	22000	9	—61.6	—58.8	—64.0	—	—
	30	9	23789	23855	23690	9	—58.7	—56.0	—61.4	—	—
	20	6	26358	26453	26240	6	—55.2	—52.7	—57.4	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 U.T.	Surface	30	989m.b.*	994m.b.*	983m.b.*	30	22.1	30.8	16.0	30	1.3
	1000	—	—	—	—	—	—	—	—	—	—
	850	30	1510	1539	1486	30	18.5	27.0	10.3	30	— 2.8
	700	30	3141	3184	3087	29	7.0	11.2	2.4	29	— 9.9
	600	30	4389	4447	4318	29	— 2.1	1.0	— 6.1	29	—17.1
	500	30	5812	5881	5725	29	—11.2	— 8.0	—14.8	29	—25.9
	400	29	7485	7569	7380	29	—24.2	—21.7	—28.1	29	—35.3
	300	29	9517	9618	9411	27	—38.4	—31.8	—44.4	27	—50.2
	250	28	10750	10857	10611	27	—44.9	—39.0	—52.8	27	—56.5
	200	28	12224	12390	12074	28	—53.0	—49.6	—56.9	28	—63.3
	150	27	14026	14129	13824	27	—64.0	—58.2	—69.7	—	—
	100	16	16429	16551	16234	16	—75.0	—70.3	—80.1	—	—
	70	5	18514	18539	18495	5	—71.2	—69.7	—73.0	—	—
	60	4	19482	19500	19460	4	—68.9	—66.0	—72.0	—	—
	50	4	20526	20546	20490	4	—64.1	—62.1	—66.2	—	—
	40	3	22063	22170	22000	3	—61.2	—60.8	—61.6	—	—
	30	3	23718	23734	23695	3	—57.0	—55.3	—59.0	—	—
	20	3	26404	26551	26305	3	—48.3	—47.7	—48.8	—	—
	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 HIGHEST & LOWEST VALUES OF ALTITUOE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

APRIL— 1976

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Marsa Matruh 1200 U.T.	Surface	29	*1011m.b.	*1020m.b.	*997m.b.	29	20.9	31.0	18.2	29	10.0
	1000	28	130	197	37	28	19.2	31.0	15.4	28	7.9
	850	29	1501	1554	1400	29	11.3	20.4	3.6	25	1.9
	700	29	3095	3167	3001	29	1.8	10.6	— 3.9	28	—17.5
	600	29	4320	4418	4213	29	— 6.6	0.9	—11.7	29	—24.2
	500	29	5719	5835	5607	29	—16.5	—10.3	—21.5	28	—33.3
	400	28	7364	7533	7238	28	—27.5	—20.7	—32.6	28	—44.0
	300	27	9379	9680	9207	27	—42.7	—38.1	—47.1	26	—56.7
	250	27	10578	10890	10254	27	—50.3	—41.9	—58.0	26	—63.7
	200	26	12035	12315	11843	26	—54.7	—48.7	—62.9	21	—67.4
	150	23	13873	14165	13663	23	—58.0	—53.8	—63.0	14	—70.4
	100	23	16373	16769	16041	23	—63.0	—57.9	—67.6	—	—
	70	17	18609	18919	18446	17	—64.1	—59.7	—72.3	—	—
	60	13	19585	19860	19420	13	—62.3	—57.1	—67.0	—	—
	50	13	20605	20902	20545	13	—59.7	—54.1	—64.7	—	—
	40	8	22154	22400	21920	8	—56.8	—52.5	—61.3	—	—
	30	7	23904	24137	23733	7	—53.0	—47.4	—59.7	—	—
	20	3	26625	26802	26480	3	—46.9	—45.6	—48.5	—	—
	10	1	31507	—	—	1	—37.3	—	—	—	—
Helwan 1200 U.T.	Surface	30	*997m.b.	*1003m.b.	*986m.b	30	27.0	38.2	20.1	30	3.6
	1000	28	110	166	14	4	23.6	26.8	22.0	4	7.9
	850	28	1512	1548	1454	28	14.3	26.0	5.4	28	— 2.5
	700	27	3124	3198	3052	27	4.7	15.3	— 3.6	27	—13.1
	600	27	4364	4459	4265	27	—3.4	5.5	— 9.4	27	—19.1
	500	27	5782	5895	5643	27	—12.8	— 6.1	—20.8	27	—25.8
	400	27	7449	7576	7254	27	—24.2	—17.4	—31.1	27	—36.6
	300	26	9482	9687	9249	26	—39.0	—31.9	—43.0	26	—50.5
	250	26	10716	10939	10495	26	—46.2	—34.0	—50.7	26	—57.4
	200	26	12181	12432	11936	26	—50.9	—44.6	—57.5	26	—62.2
	150	25	14289	14306	13801	25	—54.1	—49.1	—59.0	22	—64.7
	100	20	16618	16881	16416	19	—59.0	—54.9	—63.9	2	—69.4
	70	17	18839	19086	18605	17	—58.6	—51.0	—61.8	—	—
	60	13	19860	20100	19590	13	—56.9	—49.6	—64.3	—	—
	50	13	20985	21262	20686	13	—53.1	—47.8	—59.4	—	—
	40	11	22486	22680	22200	11	—49.5	—46.2	—53.8	—	—
	30	11	24296	24474	23959	11	—44.5	—39.8	—51.3	—	—
	20	6	27101	27228	26904	6	—35.4	—28.6	—39.9	—	—
	10	2	32176	32298	32053	2	—26.9	—20.5	—41.0	—	—
Aswan (A) 1200 U.T.	Surface	29	*989mb.	*994mb.	*983m.b	29	34.0	42.4	27.0	29	2.2
	1000	29	96	140	35	—	—	—	—	—	—
	850	29	1533	1574	1502	29	20.9	29.3	12.8	29	— 6.4
	700	28	3173	3248	3129	28	8.7	15.1	2.8	28	—15.2
	600	28	4434	4592	4370	28	— 0.2	4.1	— 4.6	28	—21.4
	500	28	5861	5977	5794	28	—10.1	— 6.5	—15.0	28	—29.9
	400	27	7544	7670	7452	27	—22.1	—18.8	—25.6	27	—40.3
	300	27	9595	9729	9472	27	—37.3	—30.0	—43.0	27	—53.7
	250	26	10842	10991	10695	26	—43.3	—37.6	—50.4	26	—59.0
	200	26	12321	12493	12152	25	—51.3	—47.0	—55.7	25	—65.6
	150	26	14146	14337	13979	25	—61.9	-59.1	—65.0	1	—71.3
	100	23	16585	16781	16429	23	—72.7	—67.9	—77.3	—	—
	70	13	18682	18371	18529	13	—72.3	—69.3	—75.3	—	—
	60	10	19631	19800	19480	10	—68.6	—67.3	—70.6	—	—
	50	10	20697	20892	20556	10	—63.0	—59.9	—66.9	—	—
	40	8	22234	22480	22000	8	—56.4	—53.2	—60.0	—	—
	30	7	23941	24192	23786	7	—51.7	—43.0	—56.0	—	—
	20	4	26570	26630	26541	4	—45.9	—44.6	—47.7	—	—
	10	—	—	—	—	—	—	—	—	—	—

N The number of casses the element has been observed during the month

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

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

APRIL — 1976

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—300)°	Speed in knots
	(N)	(N)	(N)							(N)	(N)	(N)										
Mersa Matrmh (A)	3076 (30)	705 (30)	—11.1 (30)	3860	640	—17.7	1830	819	—4.2	11297 (24)	225 (24)	—56.3 (24)	13380	161	—65.7	9500	287	—50.3	2470	—	260	44
Helwan	3376 (29)	678 (29)	— 9.7 (29)	4600	587	— 7.2	2000	798	—7.6	11442 (23)	222 (23)	—55.0 (23)	16770	096	—71.6	8860	322	—38.4	9160	311	300	136
Aswan	4068 (30)	625 (30)	—15.4 (30)	4570	593	— 7.9	3400	678	—7.2	16500 (5)	103 (5)	—76.7 (5)	17860	079	—76.5	15930	118	—73.1	11020	242	260	105
Mersa Matruh (A)	3302 (29)	685 (29)	—17.2 (29)	4510	593	—16.7	2400	763	—22.1	11292 (25)	226 25)	—55.4 (25)	14640	131	—69.0	8440	338	—38.5	9890	273	295	150
Helwan	3796 (27)	646 (27)	—14.7 (27)	5000	559	— 9.2	2210	780	—3.8	11712 (25)	220 (25)	—51.8 (25)	17370	090	—63.6	8630	336	—34.0	13030	178	315	146
Aswan	4343 (28)	609 (28)	—22.0 (28)	5050	564	—26.9	3540	665	—27.9	16907 (12)	097 (12)	—74.2 (12)	18330	074	—72.6	15370	123	—68.9	10760	253	280	150

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 — APRIL 1976

	Pressure surface (millibar)	Wind within 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	0	—	2	11	1	07	1	18	4	13	0	—	1	22	1	16	6	06	7	09	1	12	4	14	2	30	10
	1000	1	16	1	04	1	11	1	18	2	20	1	20	0	—	0	—	1	17	1	13	2	14	1	25	0	12	16
	850	0	—	0	—	1	02	1	24	1	27	1	24	0	—	1	31	1	24	1	09	3	25	1	17	0	11	21
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	0	—	0	—	0	—	0	1	14
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	1	8	1	11	1	10	6	13	0	—	1	11	0	—	1	18	2	19	0	—	6	18	10	11	0	29	14
	1000	2	12	1	12	0	—	4	19	0	—	3	8	0	—	0	—	0	—	3	32	11	18	1	12	0	25	18
	850	0	—	1	5	0	—	1	20	0	—	1	16	2	19	1	18	4	20	5	17	9	20	1	23	0	25	19
	700	1	3	0	—	0	—	1	16	0	—	0	—	0	—	2	18	6	28	7	30	4	21	1	26	0	22	24
	600	0	—	0	—	0	—	1	23	0	—	1	10	0	—	1	31	6	42	6	40	4	33	1	8	0	20	35
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	52	6	49	4	48	1	53	0	18	50
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	43	7	65	5	51	4	52	0	—	0	17	56
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	79	4	83	2	61	0	—	0	12	77
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	82	1	100	1	25	0	—	0	6	76
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	96	0	—	0	—	0	2	96
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	87	0	—	0	—	0	—	0	1	87
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

Table3.--NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

HELWAN APRIL 1976

	Pressure Surface (Millibar)	Wind within ranges of direction (000—360)°																								Number of Calm winds	Total number of observations (TN)	Mean scalar Wind apeed (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			
0000UT	Surface	3	07	9	12	1	13	5	14	2	08	2	06	0	—	1	02	1	04	1	13	0	—	5	08	0	30	9
	1000	0	—	1	13	0	—	0	—	1	05	0	—	0	—	1	02	1	04	0	—	0	—	4	07	0	8	7
	850	5	19	3	20	1	13	0	—	0	—	0	—	1	07	2	24	3	24	4	20	2	16	8	20	0	29	20
	700	2	33	0	—	1	05	0	—	0	—	0	—	0	—	0	—	2	44	9	34	6	25	9	34	0	29	33
	600	4	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	56	6	60	8	36	7	35	0	27	43
	500	4	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	81	11	56	7	41	0	25	54
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	94	8	59	10	67	0	20	64
	300	1	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	50	2	84	6	81	0	10	76
	250	1	44	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	64	1	110	2	45	0	6	74
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	79	1	63	0	3	74
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	77	0	—	0	1	77
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200UT	Surface	1	1	5	10	0	—	1	4	2	17	4	11	0	—	2	15	1	14	5	11	3	12	6	11	0	30	11
	1000	0	—	0	—	0	—	1	4	0	—	0	—	0	—	0	—	0	—	1	8	0	—	2	14	0	4	10
	850	4	11	6	11	2	10	1	6	0	—	0	—	3	13	1	9	1	24	2	28	4	25	3	16	0	27	15
	700	7	27	1	18	0	—	0	—	0	—	0	—	0	—	1	12	2	42	6	39	7	32	3	19	0	27	30
	600	3	34	1	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	60	7	46	8	31	0	26	43
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	9	3	59	10	74	11	43	0	25	56
	400	1	52	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	68	9	63	7	70	0	20	65
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	5	62	5	83	0	11	68
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	68	2	76	0	8	70
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	75	1	113	0	6	81
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	96	0	—	—	3	96
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	113	0	—	—	1	113
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

T

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 — 1976

	Pressure Surface Millibar	Wind between rangoe 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	17	12	2	15	1	12	0	—	1	5	3	12	0	—	0	—	0	—	0	—	2	8	4	12	0	30	12
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	5	20	5	18	2	22	1	9	0	—	0	—	1	18	1	11	1	19	0	—	3	10	10	15	0	29	16
	700	0	—	1	27	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	13	0	—	1	9	0	3	16
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	29	1	27	0	—	0	—	0	—	0	2	28
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	1	33	0	—	0	—	0	—	0	2	36
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	52	0	—	0	—	0	—	0	2	52
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	78	0	—	0	—	0	2	78
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	98	0	—	0	—	0	2	98
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	83	0	—	0	—	0	1	83
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	13	14	1	6	3	9	0	—	1	10	2	8	2	10	0	—	1	10	0	—	2	11	4	10	0	29	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	15	3	8	1	13	4	8	1	17	1	18	0	—	2	16	2	14	2	16	4	12	5	18	0	28	14
	700	1	21	1	4	1	13	1	14	0	—	0	—	0	—	3	19	1	12	4	16	7	26	6	22	0	25	20
	600	1	30	0	—	1	4	0	—	0	—	0	—	0	—	4	28	2	33	2	38	11	27	1	30	0	22	28
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	36	3	43	12	36	2	39	0	21	37
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	53	9	70	5	48	2	32	0	17	47
	300	0	—	1	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	67	7	69	0	—	0	16	65
	250	0	—	1	35	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	97	4	99	0	—	0	14	90
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	120	2	82	1	120	0	10	113
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	125	1	80	0	—	0	4	114
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	56	0	—	0	—	0	1	56
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	0	—	0	—	0	1	18
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

MO NTHLYREVIEW OF AGROMETEOROLOGICAL STATIONS

MERSA MATRUH — APRIL 1976

The mean daily air temperature was normal, and the mean daily relative humidity was slightly above normal.

The month was intervened by four short khamsin spells in the periods : (7th & 8th), (10th & 11th), (15th) and (24th, 25th & 26th). The first (33.4°C) on the 8th. In the rest of the month, weather was generally mild.

The highest maximum soil temperatures were lower than the corresponding values of last April at all depths with departures between 2.0°C (at 2cm.) and 0.1°C (at both 50 & 100 cm.). The lowest minimum soil temperature was the same as last April at 2 cm. and higher at other depths with departures between 1.2°C (at 5 cm.) and 0.3°C (at 50 cm.)

The total monthly rainfall was 2.9 mm. which is higher than normal by 0.6 mm. Sandstorms occurred on the 8 th & 15th and rising sand on the 4th, 5th, 6th, 14th, 21st & 27th.

The mean daily actual sunshine duration was lower than average by 0.7 hour. The mean daily wind speed at 1.5 m. height was higher than the corresponding value of last April by 0.6 met./sec.

TAHRIR — APRIL 1976

The mean daily air temperature and relative humidity were nearly the same as normal.

The month was intervened by four khamsin spells in the periods (8th - 11th), (15th - 21st) and (25th - 27th). The last spell yielded the highest maximum air temperature (39.0°c) on the 26th. In the rest of the month, weather was mild in general.

The total monthly rainfall was 4.1mm., while the normal is 1.8 mm. Sandstorms were reported on the 15th and rising sand on the 16th & 21st.

The highest maximum soil temperatures were lower than average at all depths with departures between 4.1 °C (at 2cm.) and 0.5 °C (at both 50, 100 cm). The lowest minimum soil temperatures were lower than average at 2, 5, 100 cm. depths with departures between 0.1° & 0.7°C ; higher than average at 10, 20 and 50 cm. depths with departures between 0.5° & 1.4°C.

The mean daily actual sunshine duration, wind speed at 1.5 m. height and pan evaporation were lower than average by 0.8 hour, 0.1 m./sec and 1.57 mm. respectively.

BAHTIM — APRIL 1976

The mean daily air temperature was higher than average, while the mean daily relative humidity was lower than average.

The month was intervened by five short khamsin spells in the periods: (8 th & 9 th), 11th, 15th, 21st, (25th, 26th & 27th). The last spell yielded the highest maximum air temperature (39.9°C) on the 26th. In the rest of the month, weather was generally mild.

The highest maximum soil temperatures were higher than average at all depths with departures between 4.6°C (at both 2,5 cm.) and 0.4°C (at 100 cm.).

The lowest minimum soil temperatures were also higher than average at all depths with departures between 2.5°C (at 2cm.) & 0.3°C (at 10 cm).

The total monthly rainfall was only 1.4 mm. against 4.0 mm. for average. Rising sand was reported on the 8th, 9th, 14th, 15th, 16th & 21st.

The mean daily actual sunshine duration was lower than average by 0.7 hour. The mean daily wind speed at 1.5 m. height and pan evaporation were slightly higher than average.

KHARGA — APRIL 1976

The mean daily air temperature and relative humidity were higher than normal.

The month was characterized by two khamsin waves in the peirods : (11th - 15th) and (25th-27th). The first wave yielded the highest maximum air temperature (44.2°C) on the 15 th.

In the rest of the month weather was generally mild.

The highest maximum soil temperatures were higher than average at depths between 2 & 20 cm. with departures between 1.2°C (at 5 cm.) & 3.0 °C (at 10 cm.); lower than average at 50 cm. by 0.2°C and the same as average at 100 cm. depth. The lowest minimum soil temperature was the same as average at 2 cm ; lower than average at 5, 10 cm. by 0.8°C & 0.6°C; higher than average at 20, 50, 100 cm. depths with slight departures between 0.1° & 0.4°C.

Rising sand was reported on the 1st, 12th, 13th, 15th, 16th, 17th, 18th, 19th, 27th, 28th, & 29th.

The mean daily actual sunshine duration, windspeed at 1.5 met. height and pan evaporation were lower than average by 0.6 hour, 0.4 m./sec. and 0.76 mm. respectively.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND
APRIL— 1976

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.....	22.1	12.0	17.4	15.1	18.7	24.0	24.0	24.0	23.5	17.1	4.2	1.4	0.4	0.0	0.0	0.0
Tahrir	28.3	11.8	19.2	15.4	21.6	24.0	24.0	24.0	23.4	16.6	10.4	3.5	1.1	0.1	0.0	0.0
Bahtim	27.8	11.1	19.3	15.0	21.9	24.0	24.0	24.0	22.9	16.3	10.4	4.1	1.4	0.4	0.0	0.0
Kharga	33.2	20.9	27.1	24.7	28.6	24.0	24.0	24.0	24.0	24.0	22.3	14.8	6.8	1.6	0.5	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.
APRIL — 1976

STATION	Max. Temp. at 1½ metres (°C)				Min Temp. at 1½ metres. (°C)				Min. Temp. at 5 cms. above ground			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh.....	33.4	8	17.8	3	16.0	15.26	8.5	7	6.0	24	—	—
Tahrir	39.0	26	23.8	5	17.6	15	7.8	3	6.0	3	4.8	2.3
Bahtim	39.9	26	22.7	4	16.8	15	8.0	7	3.2	7	2.7	7
Kharga	44.2	15	26.1	5	26.5	28	14.6	7	10.2	7	—	—

Table C 3.— (SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL.
APRIL — 1976

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 UT	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day	Date
M Matruh...	421.1	258.4	388.4	67	68	53	14	8	9.7	9.7	14.0	11	5.0	10	5.9	—	2.9	2.7	10
Tahrir.....	423.9	272.8	387.3	70	62	38	18	8,21	9.8	9.5	15.7	15	4.7	9	5.9	7.51	4.1	2.8	11
Bahtim	404.1	270.4	387.0	70	57	33	9	26	8.8	8.2	16.0	27	4.3	9	8.4	8.93	1.4	1.2	11
Kharga	491.6	294.3	382.2	77	30	23	10	26.29	7.7	7.9	12.2	17	3.7	29	15.4	15.32	0.0	0.0	—

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

APRIL 1976

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	33.0	31.5	26.6	23.0	21.7	20.5	20 2	—	—	—	—	—	—	—	—	—
	L	14.2	14.0	14.3	17.2	17.8	18.4	19.5	—	—	—	—	—	—	—	—	—
Tahrir . . .	H	44.0	39.1	34.1	28.8	25.4	23.4	22 0	22.0	31.3	28.6	27.3	24.9	22.6	22.0	21.1	—
	L	15.6	14.9	16.2	19.6	21.1	20.2	19.9	20.8	15.4	15.4	15 7	17.0	18.9	18.8	18.7	—
Bahtim . . .	H	52.5	42.3	34.8	28.4	24.9	23 2	22.7	23.1	40.6	29.2	26.6	23.9	22.1	20.0	19.1	—
	L	19.0	16.9	18.0	21.4	21.8	21.0	21.9	22.9	14.4	14.2	15 2	16.8	18.3	17.0	18.2	—
Kharga . . .	H	54.7	47.0	41.4	34.8	29.0	27.2	26.2	26.6	—	—	—	—	—	—	—	—
	L	11.8	14.4	18.8	23.3	25.4	25.0	25.0	26 3	—	—	—	—	—	—	—	—

TABLE C 5.—SURFACE WIND

APRIL 1976

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres							Max. Gust (konts (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
M.Matsuh. .	4.0	3.0	5.0	30	25	15	10	4	2	1	50	8
Tahrir . . .	2.5	1.8	3.2	29	17	5	2		0	0	46	21
Bahtim . . .	2.6	1.7	3.5	29	20	10	3	0	0	0	38	9
Kharga . . .	3.4	2.6	4.1	28	22	15	8	1	0	0	36	17

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MONTHLY WEATHER REPORT

VOLUME 19 NUMBER 5

MAY, 1976

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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 several 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 19 NUMBER 5

MAY, 1976

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

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

MAY 1976

Changeable Weather. A pronounced khamsin heat wave during the first 10 days.

PRESSURE DISTRIBUTION

A depression passed through East Mediterranean on the 5*th*. Five Khamsin depressions passed through north of Egypt on the 8*th*, 12*th* 18*th*, 23*rd* & 30*th*. High pressure established in their rear.

The mean atmospheric pressure over Egypt was in general slightly below normal.

SURFACE WIND

The prevailing winds were mostly light to moderate N-ly & NW-ly. In association with Khamsin waves winds were generally S-ly & SW ly, fresh to strong at times in scattered places.

TEMPERATURE

This month was characterized by five khamsin heat waves. The first prevailed most of the first 10 days of the month and was excessive. The other four waves were short, light in the north but moderate in the south.

Apart from these heat waves, weather was mild and daily maximum & minimum air temperatures showed slight to moderate departures below normal.

The highest and lowest maximum air temperatures reported were respectively 44,8°o at Kharga on the 8*th* and 20,2°c at Sidi Barrani on the 8th & 13th.

The highest and lowest minimum air temperatures reported were respectively 28,0°C at Kharga on the 2*nd* & at Aswan on the 18*th* and 10,4°C at Bahtim on the 3*rd*

PRECIPITATION

Light rain was reported over scattered places mostly in north on the 17*th* & 18*th*. Thundery rain of moderate intensity was reported on the 18*th* over few places in the Mediterranean district.

The monthly rainfall amounts departed slightly from normal.

The maximum daily rainfall was 12.7 mm. at Dabaa on the 18th.

The maximum monthly rainfall was 13.5 mm. at th same station. (

OTHER WEATHER PHENOMENA

Rising sand was reported during several days over scattered places.

Early morning mist developed during some dayes over Delta & Cairo.

Cairo, Marc1979

Chairman (M. S. EL DIN HARB)

Board of Directors,

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

MAY — 1976

STATION	Atmospheric Presure (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	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	1013.3	—0.7	25.8	—0.8	17.5	+1.0	21.6	22.3	+1.4	16.6	+0.3	63	+4	—	—	—	8.4
Mersa Matruh. (A)	1013.3	—0.4	24 9	+0.5	15.5	+0.9	20.2	19.9	—0.1	16.6	+0.2	74	+8	295.2	426.5	69	5.3
Alexandria . (A)	1012.8	—0.3	27.5	+0.8	16.9	+0.4	22.2	21.6	+0.2	17.2	—0.3	64	—3	297.0	425.8	70	4.4
Port Said . . (A)	1011.2	—1.4	26.6	+1.0	18.1	—1.2	22.4	21.9	—0.1	18.3	—0.6	71	+1	325.3	425.8	76	4.0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1011.8	—1.0	31.0	—0.7	14.4	—0.2	22.7	21.4	—1.2	16.3	+0.2	61	+10	319.9	424.6	75	6.1
Cairo . . . . (A)	1012.3	+0.1	32.4	+0.2	18.2	+0.8	25·3	24.9	+0.3	17.0	0.0	46	+3	—	—	—	15.2
Fayoum.	—	—	34.5	+0.8	17.1	—0.1	25.8	25.7	+0.7	17.5	+1.1	44	+7	—	—	—	9.8
Minya . . . . (A)	1011.0	—0.1	35.5	+0.7	17.0	+0.6	26.2	26.6	+0.9	17.2	+0.6	39	+4	334.1	419.4	80	15.2
Assyout. . . . (A)	1011.0	+0.4	35.1	—0.9	18.9	—0.3	27.0	27.5	—0.1	15.6	—0.3	25	+1	—	—	—	19.4
Luxor . . . . (A)	1009.1	+0.2	38.4	—0.4	20.7	+0.6	29.6	30.0	—0.1	18.0	+0.6	28	+6	—	—	—	12.5
Aswan . . . . (A)	1008.7	+0.2	39.0	+0.5	23.5	+2.4	31.2	31.6	+1.2	16.8	+1.3	16	+4	340.6	410.8	83	25.6
Siwa	1011.2	—1.6	34.7	+0.5	18.8	+2.1	26.8	26.0	+0.3	16.9	+1.4	38	+10	278.7	407.4	68	16.0
Bahariya	1010.9	—1.1	34.7	+0.4	18.8	+1.5	26.8	26.9	+0.9	16.3	+0.5	31	+ 2	—	—	—	13.6
Farafra	1012.0	—1·4	35.8	+1.4	19·0	+2.2	27.4	27.0	+1.3	15.8	+1.0	27	+ 2	—	—	—	21.8
Dakhla	1011.1	—0.2	36.9	+0.1	18.4	—1.0	27.6	28.1	+0.5	16.9	+1.3	30	+11	—	—	—	20.2
Kharga	1009.7	—0.2	38.1	+0.5	24.2	+3.3	31.2	31.4	+2.4	16.8	+1.3	22	+ 1	345.1	414.0	83	18.3
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1009.6	—0 3	30.7	+0.8	21.7	+1.3	26.2	26.5	+0.8	18.5	+0.4	44	0	341.7	417·4	82	13.0
Quseir	1008.9	—0.5	30.6	+0.4	23.2	+0.4	26.9	26.9	+0.6	19.2	+0.4	46	0	—	—	—	10.5

Table A 2 — MAXIMUM AND MINIMUM AIR TEMPERATURE

MAY — 1976

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mersa Matruh (A)	35.0	7	21.4	8,14	10	2	0	0	0	13.8	—	19.2	7	12.8	2	0	0	0	0
Alexandria (A)	36.4	8	23.5	15	23	6	1	0	0	14.8	—	20.2	17	14.0	16	0	0	0	0
Port Said (A)	31.2	8	24.2	2	27	1	0	0	0	17.8	—	21.2	8	15.9	25	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	37.2	8	26.0	14	31	19	1	0	0	—	—	19.0	8	10.7	2	0	0	0	0
Cairo (A)	42.0	8	26.8	14	31	24	6	1	0	—	—	23.2	7	13.4	3	0	0	0	0
Fayoum	42.5	8	28.6	14	31	28	13	2	0	14.9	—	13.8	22	13.8	22	0	0	0	0
Minya (A)	43.2	8	29.0	15	31	30	14	2	0	14.7	—	21.8	18	12.0	3	0	0	0	0
Assyout (A)	43.2	8	28.0	14	31	29	15	2	0	—	—	24.1	8	14.7	28	0	0	0	0
Luxor (A)	43.0	8,18	33.8	15	31	31	25	9	0	12.7	—	25.3	19	17.4	22	0	0	0	0
Aswan (A)	43.4	8	33.8	22	31	31	28	12	0	—	—	28.0	18	19.8	23	0	0	0	0
Siwa	43.4	7	26.4	15	31	28	14	2	0	18.0	—	24.6	5,6	12.7	15	0	0	0	0
Bahariya	42.6	7	28.5	15	21	29	15	2	0	18.2	—	25.7	7	14.8	22	0	0	0	0
Farafra	43.8	7	29.8	14	31	30	15	3	0	17.4	—	26.0	8	14.5	28	0	0	0	0
Dakhla	43.4	7,8	30.3	14	31	31	20	8	0	18.2	—	24.8	6	13.6	23	0	0	0	0
Kharga	44.8	8	31.8	15	31	31	22	10	0	21.0	—	28.0	2	18.0	22	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	34.5	12	27.5	4	31	19	0	0	0	—	—	24.6	9	18.3	1	0	0	0	0
Quseir	35.4	9	26.7	15	31	18	2	0	0	21.1	—	26.6	8	19.5	16	0	0	0	0

TABLE A 3.—SKY COVER AND RAINFALL

MAY — 1976

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	1.8	3.0	2.4	2.5	—	—	—	—	—	—	—	—	—	—	—
Mersa Matruh (A)	2.3	4.0	3.5	3.6	3.2	8.5	+5.5	6.3	18	1	4	2	1	0	0	0
Alexandria (A)	2.6	3.5	3.8	3.2	3.2	3.2	+1.5	2.4	13	1	3	1	0	0	0	0
Port Said (A)	1.4	2.2	2.2	1.6	1.9	0.2	—2.4	0.2	18	1	1	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.2	2.0	2.0	1.0	1.3	3.5	—0.7	2.6	11	0	3	1	0	0	0	0
Cairo (A)	0.8	3.0	2.9	2.3	2.3	Tr.	—0.7	Tr.	11,17,18	3	0	0	0	0	0	0
Fayoum	—	1.9	2.6	1.8	—	0.0	—1.1	0.0	—	0	0	0	0	0	0	
Minyau (A)	1.4	2.5	2.6	2.4	2.3	Tr.	—0.5	Tr.	13	1	0	0	0	0	0	0
Assyout (A)	0.9	1.2	2.0	2.0	1.5	0.0	—tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	1.2	1.3	1.6	1.8	1.4	Tr.	—0.3	Tr.	18,19	2	0	0	0	0	0	0
Aswan (A)	0.7	1.3	1.2	1.0	1.1	0.0	—tr.	0.0	—	0	0	0	0	0	0	0
Siwa	3.4	1.5	2.4	2.2	2.4	2.5	+0.9	1.7	17	0	2	1	0	0	0	0
Bahariya	1.2	2.2	2.6	2.8	2.1	1.3	+1.2	1.3	17	0	1	1	0	0	0	0
Farafra	—	1.6	2.5	2.3	—	Tr.	0.0	Tr.	12,15,17	2	0	0	0	0	0	0
Dakhla	0.1	0.6	0.9	0.4	0.6	0.0	—0.1	0.0	—	0	0	0	0	0	0	0
Kharga	0.4	0.9	1.5	1.8	1.0	0.0	—0.3	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.6	1.4	2.2	1.7	1.8	0.1	—0.4	0.1	18	2	1	0	0	0	0	0
Quseir	0.6	1.2	1.5	0.9	1.1	Tr.	—0.1	Tr.	18	1	0	0	0	0	0	0

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

MAY — 1976

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mersa Matruh (A)	4	0	0	0	0	0	10	4	5	0	8	0	0	10	6
Alexandria (A)	3	0	0	0	0	1	2	0	1	0	1	0	0	8	2
Port Said (A)	1	0	0	0	0	0	1	0	0	0	3	0	0	17	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	3	0	0	0	0	0	2	0	0	0	1	0	0	23	0
Cairo (A)	0	0	0	0	0	0	6	1	2	0	6	2	0	17	1
Fayoum	0	0	0	0	0	0	0	0	0	0	0	2	0	—	—
Minya (A)	0	0	0	0	0	0	0	0	6	0	6	0	0	16	0
Assyout (A)	0	0	0	0	0	0	0	0	1	0	8	2	0	22	0
Luxor (A)	0	0	0	0	0	0	0	0	12	0	9	2	0	23	0
Aswan (A)	0	0	0	0	0	0	0	0	3	0	11	0	0	25	1
Siwa	2	0	0	0	0	1	0	0	0	0	2	0	0	—	—
Bahariya	1	0	0	0	0	1	0	0	0	0	0	3	0	16	2
Farafra	0	0	0	0	0	0	0	0	1	0	6	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	11	0	0	28	0
Kharga	0	0	0	0	0	0	0	0	1	0	6	0	0	26	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1	0	0	0	0	1	0	0	0	0	7	1	0	20	0
Quseir	0	0	0	0	0	0	0	0	2	0	1	0	0	26	0

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

MAY 1976

Station	calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing within 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	11	4	116	1–10	35	87	113	85	25	7	3	3	5	14	40	62	479
				11–27	8	22	9	6	1	1	0	0	2	6	40	39	134
				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	109	122	91	26	8	3	3	7	20	80	101	613
Mersa Matruh (A)	24	0	0	1–10	17	57	40	79	41	16	9	9	35	55	34	70	462
				11–27	1	38	28	33	7	4	3	1	6	15	78	44	258
				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	95	68	112	48	20	12	10	41	70	112	114	720
Alexandria (A)	7	0	0	1–10	105	97	51	37	26	21	9	3	6	30	56	147	588
				11–27	21	32	3	4	0	0	0	0	0	20	36	33	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	126	129	54	41	26	21	9	3	6	50	92	180	737
Tanta	23	0	0	1–10	89	70	79	63	25	17	13	6	29	29	76	71	567
				11–27	47	18	18	19	0	0	0	0	0	2	30	20	154
				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	136	88	97	82	25	17	13	6	29	31	106	91	721
Cairo (A)	11	4	1	1–10	48	91	59	17	8	3	8	7	37	59	67	77	481
				11–27	19	57	41	20	6	5	3	2	18	19	29	28	247
				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	67	148	109	37	14	8	11	9	55	78	96	105	728
Fayoum	9	4	0	1–10	188	236	45	16	8	10	8	17	26	33	48	65	700
				11–27	0	12	5	0	0	0	0	2	6	1	5	0	31
				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	248	50	16	8	10	8	19	32	34	53	65	731
Minya (A)	16	2	0	1–10	173	68	18	2	8	29	12	12	11	9	28	88	438
				11–27	140	33	6	0	2	2	8	1	6	12	17	41	288
				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	313	101	24	2	10	31	20	13	17	21	45	129	726
Asyout (A)	0	0	0	1–10	95	93	40	25	28	24	20	16	13	11	28	85	478
				11–27	108	25	4	0	0	6	5	3	3	8	24	79	265
				28–47	0	0	0	0	0	0	0	1	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	203	118	44	25	28	30	25	20	16	19	52	164	744
Luxor (A)	140	0	0	1–10	95	76	43	20	5	8	33	21	8	31	91	114	545
				11–27	4	3	1	3	0	0	5	5	0	1	7	30	59
				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	79	44	23	5	8	38	26	8	32	98	144	604

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

MAY — 1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing within 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
Aswan	2	2	0	1—10	205	121	21	14	13	11	11	5	2	8	38	93	542
				11—27	91	7	1	0	0	9	2	2	1	5	17	63	198
				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	**296**	**128**	**22**	**14**	**13**	**20**	**13**	**7**	**3**	**13**	**55**	**156**	**740**
Siwa	22	7	3	1—10	36	59	51	107	80	56	25	14	12	44	34	51	569
				11—27	7	9	7	28	13	10	2	1	0	8	29	29	143
				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**	**68**	**58**	**135**	**93**	**66**	**27**	**15**	**12**	**52**	**63**	**80**	**712**
Dakhla	2	9	0	1—10	66	39	31	42	41	59	39	32	29	26	61	122	587
				11—27	21	13	3	2	5	2	1	1	5	12	36	48	146
				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**	**52**	**34**	**44**	**46**	**61**	**40**	**33**	**31**	**38**	**97**	**170**	**733**
Kharga	1	0	0	1—10	214	107	26	14	14	14	12	5	4	11	23	73	517
				11—27	140	38	1	0	0	0	3	1	4	9	9	21	226
				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	**354**	**145**	**27**	**14**	**14**	**14**	**15**	**6**	**8**	**20**	**32**	**94**	**743**
Hurghada	1	5	0	1—10	43	73	20	12	8	24	11	13	9	14	115	72	414
				11—27	86	30	1	4	2	2	1	0	0	7	72	116	321
				28—47	0	0	0	0	0	0	0	0	0	0	0	3	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**129**	**103**	**21**	**16**	**10**	**26**	**12**	**13**	**9**	**21**	**187**	**191**	**738**
Quseir	2	1	0	1—10	94	51	20	21	16	21	15	15	11	51	155	90	560
				11—27	72	9	0	0	0	0	0	0	0	4	11	85	181
				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**	**60**	**20**	**21**	**16**	**21**	**15**	**15**	**11**	**55**	**166**	**175**	**741**

UPPER AIR CLIMATOLOGICAL DATA

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

MAY 1976

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 Motruh 0000 UT	Surface	29	*1010m.b.	*1013m.b.	*1007m.b.	29	18.4	22.8	14.4	29	13 7
	1000	29	118	138	087	29	17.7	24.2	13.4	29	12.9
	850	29	1499	1551	1457	29	13.3	20.8	5.2	29	— 1.5
	700	29	3104	3192	3037	29	2.8	8.0	— 4.0	29	— 9.2
	600	28	4333	4431	4244	28	— 5.5	1.3	—10.3	28	—18.0
	500	27	5736	5843	5633	27	—15.3	— 9.2	—19.1	27	—26.2
	400	26	7383	7507	7264	26	—27.2	—21.7	—31.7	26	—39.0
	300	26	9389	9559	9244	26	—43.1	—39.1	—46.6	26	—53.3
	250	26	10556	10787	10436	26	—51.9	—46.0	—57.7	26	—61.1
	200	24	12019	12216	11836	24	—57.8	—48.2	—67.5	13	—66.1
	150	23	13823	14000	13561	23	—60.9	—55.3	—70.0	4	—69.4
	100	14	16174	16456	15977	14	—65.3	—60.5	—72.5	—	—
	70	9	18477	18665	18102	9	—65.1	—59.2	—70.0	—	—
	60	5	19470	19620	19350	5	—63.1	—61.3	—65.5	—	—
	50	5	20578	20755	20443	5	—60.4	—59.0	—63.0	—	—
	40	2	22085	22100	22070	2	—55.2	—53.8	—56.5	—	—
	30	2	23846	23888	23803	2	—54.0	—53.1	—55.0	—	—
	20	2	26506	26589	26424	2	—49.8	—48.7	—50.9	—	—
	10	2	31984	31159	31010	2	—38.4	—31.9	—44.9	—	—
Helwan 0000 UT	Surface	31	*995 m.b.	*1000m.b.	*988m.b.	31	20.8	25.7	16.0	31	10.6
	1000	30	102	140	037	1	24.4	—	—	1	7.8
	850	30	1499	1553	1427	30	15.8	21.1	9.3	30	2.7
	700	30	3122	3194	3043	30	5.9	8.9	1.3	30	— 6.7
	600	30	4378	4444	4287	30	— 2.3	1.4	— 6.2	30	—14.5
	500	30	5795	5872	5762	30	—11.4	— 7.5	—15.7	30	—24.0
	400	29	7469	7469	7342	29	—23.5	—18.7	—29.0	29	—35.2
	300	29	9511	9511	9332	29	—38.6	—32.9	—44.7	29	—47.7
	250	29	10741	10893	10540	29	—47.2	—40.6	—51.0	29	—55.7
	200	29	12191	12346	11989	29	—54.7	—47.7	—60.0	28	—62.8
	150	27	14020	14216	13834	27	—58.5	—54.1	—63.7	16	—66.6
	100	23	16525	16672	16398	23	—64.3	—58.5	—71.1	—	—
	70	16	18684	18799	18621	16	—65.0	—60.0	—73.1	—	—
	60	9	19639	19 30	19580	9	—62.6	—59.8	—65.0	—	—
	50	9	20742	20823	20655	9	—61.1	—57.0	—64.3	—	—
	40	7	22239	22370	22120	7	—58.0	—53.8	—60.9	—	—
	30	6	23988	24108	23891	6	—55.3	—51.4	—58.8	—	—
	20	4	26596	26650	26512	4	—51.5	—50.1	—54.6	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 UT	Surface	29	*988m.b.	*990m.b.	*984m.b.	29	26.0	33.2	21.6	29	4.1
	1000	29	084	107	049	—	—	—	—	—	—
	850	29	1508	1533	1482	29	21.0	23.6	15.3	29	0.5
	700	29	3155	3178	3124	29	9.4	12.6	6.5	29	— 8.1
	600	29	4414	4438	4374	29	— 0.8	3.4	— 3.2	29	—15 6
	500	28	5852	5886	5804	28	— 9.3	— 7.2	—14.0	28	—24.9
	400	27	7540	7597	7474	27	—21.5	—18.6	—25.5	27	—34.9
	300	26	9595	9678	9518	26	—37.3	—30.8	—41.5	23	—48.6
	250	26	10839	10931	10724	26	—46.6	—41.3	—50 9	26	—57.0
	200	26	12281	12401	12150	26	—55.8	—50.4	—61.4	22	—64.4
	150	23	14074	14198	13971	23	—64.5	—58.5	—70 0	2	—68.6
	100	16	16494	16586	16414	16	—73.4	—67.8	—69.0	—	—
	70	8	18534	18636	18500	8	—74.8	—69.2	—84.4	—	—
	60	4	19515	19560	19450	4	—67.9	—65.8	—69.8	—	—
	50	4	20594	20 29	20728	4	—62.2	—60.6	—64.8	—	—
	40	2	22025	22100	21950	2	—56.6	—56.2	—57.1	—	—
	30	1	23862	—	—	1	—51.4	—	—	—	—
	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 — MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHEST & LOWEST VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

MAY 1976

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 1200 U.T.	Surface	31	1011*mb.	1013*mb.	1003*mb.	31	23.1	28.0	20.4	31	15.2
	1000	31	121	141	088	31	22.0	21.9	13.6	31	13.0
	850	31	1517	1554	1459	31	14.9	22.5	9.0	31	1.4
	700	31	3132	3206	3047	31	5.0	10.4	— 0.3	31	—10.7
	600	31	4366	4449	4265	31	— 2.8	5.1	— 7.3	31	—19.4
	500	30	5793	5857	5655	30	—12.8	— 7.7	—19.5	30	—28.0
	400	29	7458	7577	7282	28	—24.6	—20.2	—30.3	28	—39.9
	300	29	9492	9642	9263	28	—40.3	—36.3	—45.8	28	—53.8
	250	29	10704	10881	10514	28	—49.2	—43.3	—54.9	27	—61.4
	200	28	12121	12335	11244	26	—56.6	—48.1	—63.8	18	—67.2
	150	25	13956	14125	13780	25	—59.8	—53.1	—64.3	10	—70.1
	100	20	16486	16645	16301	20	—62.7	—59.2	—67.3	—	—
	70	16	18697	18834	18478	16	—62.9	—56.7	—67.7	—	—
	60	6	19683	19820	19470	6	—59.1	—54.7	—63.7	—	—
	50	6	20798	20934	20519	6	—56.4	—52.3	—62.8	—	—
	40	5	22336	22450	22080	5	—51.7	—49.7	—52.4	—	—
	30	4	24208	24263	24159	4	—47.3	—46.2	—48.9	—	—
	20	3	26940	26985	26855	3	—42.2	—42.1	—42.5	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	31	995*mb.	998*mb.	987*mb.	31	31.5	40.0	26.1	31	9.2
	1000	31	095	127	023	—	—	—	—	—	—
	850	31	1521	1576	1465	29	18.2	26.8	11.2	29	3.9
	700	31	3154	3235	3094	30	7.5	13.4	1.8	30	— 7.6
	600	31	4405	4512	4302	31	— 0.7	4.0	— 4.8	31	—14.8
	500	31	5834	5967	5635	31	— 9.7	— 4.0	—14.8	31	—25.0
	400	31	7528	7673	7413	31	—21.5	—16.4	—26.9	31	—35.7
	300	31	9596	9771	9461	31	—36.6	—33.0	—43.0	31	—48.6
	250	31	10831	10954	10641	31	—45.0	—40.1	—49.0	31	—56.3
	200	31	12301	12510	12124	30	—52.3	—43.7	—58.0	30	—62.5
	150	29	14145	14342	13965	29	—55.6	—50.7	—64.7	25	—62.3
	100	25	16716	16917	16549	25	—58.9	—53.7	—69.2	4	—66.0
	70	19	18987	19254	18818	19	—58.0	—51.5	—64.3	—	—
	60	17	19989	20180	19830	17	—54.9	—50.8	—63.6	—	—
	50	17	21126	21315	20936	17	—51.2	—45.5	—59.9	—	—
	40	11	22689	22890	22450	11	—46.0	—39.6	—54.4	—	—
	30	11	24529	24767	24224	11	—40.8	—34.9	—50.0	—	—
	20	6	27308	27635	26917	6	—34.9	—28.1	—44.4	—	—
	10	1	31661	—	—	1	—36.1	—	—	—	—
Aswan 1200 U.T.	Surface	31	987*mb.	990*mb.	983*mb.	31	37.8	42.4	33.5	31	3.3
	1000	31	077	103	036	—	—	—	—	—	—
	850	31	1530	1561	1501	31	24.1	29.1	19.1	31	— 6.2
	700	31	3185	3227	3146	31	11.3	14.0	7.6	31	—15.3
	600	31	4452	4501	4400	31	2.4	5.3	— 1.4	31	—22.4
	500	31	5898	5955	5826	31	— 8.3	— 5.1	—12.2	31	—31.0
	400	31	7591	7649	7490	31	—20.3	—16.6	—26.0	31	—41.0
	300	30	9661	9743	9510	30	—35.5	—29.0	—40.6	30	—53.7
	250	30	10905	10994	10734	30	—44.8	—39.0	—50.2	30	—61.4
	200	29	12365	12457	12193	29	—54.3	—50.6	—58.7	29	—68.9
	150	28	14172	14277	14017	28	—62.6	—56.2	—66.3	2	—72.6
	100	23	16627	16711	16484	23	—71.0	—67.2	—74.7	—	—
	70	16	18730	18795	18594	16	—71.8	—66.6	—79.8	—	—
	60	5	19688	19740	19600	5	—66.9	—64.6	—68.5	—	—
	50	5	20775	20834	20691	5	—59.3	—52.4	—62.8	—	—
	40	4	22305	22350	22270	4	—55.2	—53.8	—55.9	—	—
	30	4	24069	24125	24041	4	—49.0	—45.6	—53.8	—	—
	20	2	26792	26829	26755	2	—43.4	—42.1	—44.7	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

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

MAY — 1976

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)										
Mersa Matruh (A)	3480 (28)	662 (28)	—11.5 (28)	4550	586	—17.3	2500	749	—13.5	12000 (20)	203 (20)	—60.0 (20)	13500	154	—60.0	9600	284	—58.7	3075	—	240	35
Helwan . . . (A)	4026 (27)	627 (27)	—11.8 (29)	4580	590	—17.7	3330	677	—7.7	13333 (19)	171 (19)	—57.3 (19)	16630	099	—65.5	11070	236	—53.5	10830	248	285	135
Aswan . . . . (A)	4536 (29)	592 (29)	—16.1 (29)	5000	560	—18.1	4000	632	—11.8	14628 (9)	141 (9)	—69.9 (9)	16840	095	75.0	11200	233	—54.3	10350	266	340	120
	(N)	(N)	(N)							(N)	(N)	(N)										
Mersa Matruh (A)	3918 (31)	633 (31)	—16.1 (31)	4650	582	—15.0	3160	694	—19.6	11950 (24)	204 (24)	—56.8 (24)	14540	139	—68.6	9780	282	—45.0	11085	239	270	130
Helwan. . . . (A)	4273 (31)	611 (31)	—13.8 (31)	5320	539	—27.0	3610	600	—4.6	12502 (26)	197 (26)	—55.3 (26)	16300	108	—62.2	10280	230	—42.0	12520	193	286	136
Aswan . . . . (A)	4753 (31)	578 (31)	—24.2 (31)	5240	545	—22.7	4100	625	—26.9	15666 (15)	120 (15)	—69.8 (15)	17900	080	—74.0	12400	196	—57.1	12800	—	270	135

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) — MAY 1976

Time	Pressure Surface (millibar)	Wind within 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	1	03	0	—	0	—	3	09	6	09	3	09	0	—	0	—	1	06	7	08	3	05	1	03	4	29	7
	1000	1	22	0	—	1	09	1	15	4	12	2	14	0	—	1	05	2	18	3	14	4	19	1	12	0	17	14
	850	0	—	0	—	1	17	1	24	2	72	3	16	2	13	1	07	1	12	1	22	5	19	0	—	0	17	18
	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	4	11	7	11	3	11	2	15	0	—	0	—	0	—	0	—	0	—	0	—	6	19	9	13	0	31	13
	1000	1	20	4	11	3	12	2	20	0	—	0	—	0	—	0	—	1	11	1	28	8	20	6	18	1	27	17
	850	1	11	0	—	1	5	2	6	1	15	1	8	1	5	0	—	6	16	5	19	5	16	1	9	1	25	14
	700	0	—	0	—	1	5	0	—	0	—	0	—	1	8	0	—	4	30	12	26	2	13	2	24	0	22	24
	600	0	—	0	—	1	6	0	—	0	—	0	—	0	—	0	—	4	36	12	35	1	31	3	14	0	21	31
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	38	9	41	3	32	1	26	0	19	39
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	45	6	52	3	43	0	—	0	15	47
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	58	7	57	0	—	0	—	0	12	58
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	64	5	74	0	—	0	—	0	10	69
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	81	3	73	0	—	0	—	0	6	77
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	63	0	—	0	—	0	—	0	4	63
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	36	1	31	0	—	0	—	0	—	0	2	30
	70	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	1	20
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within 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 — MAY 1976

Time	Pressure Surface (Millibar)	Wind within 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	10	3	10	3	12	5	6	1	04	2	08	0	—	0	—	0	—	0	—	0	—	13	07	0	31	8
	1000	0	—	0	—	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	13
	850	9	20	6	15	4	19	1	11	0	—	0	—	0	—	0	—	1	10	2	22	5	23	2	12	0	30	17
	700	5	31	0	—	1	08	0	—	0	—	0	—	0	—	0	—	1	12	4	24	7	29	12	25	0	30	26
	600	6	30	0	—	1	06	0	—	0	—	0	—	0	—	0	—	0	—	5	33	11	34	7	30	0	30	31
	500	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	24	15	37	11	35	0	29	35
	400	2	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	55	17	49	6	44	0	29	48
	300	2	62	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	53	4	73	12	68	7	58	0	26	65
	250	1	95	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	50	6	67	6	78	7	68	0	21	71
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	70	3	84	2	46	0	7	70
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	74	2	56	0	4	65
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	31	0	—	0	1	31
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface																											
	1000	4	09	3	09	0	—	0	—	1	11	1	14	1	10	0	—	0	—	0	—	2	06	19	09	0	31	9
	850	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	700	5	12	4	09	5	11	3	10	1	05	0	—	1	12	0	—	2	18	1	05	1	20	6	13	0	29	12
	600	7	22	1	17	0	—	1	12	1	20	0	—	0	—	0	—	2	36	5	28	5	22	9	20	0	31	23
	500	6	33	0	—	2	14	0	—	1	44	0	—	0	—	0	—	1	64	2	16	12	34	7	27	0	31	31
	400	1	15	1	12	0	—	0	—	1	45	0	—	0	—	0	—	2	44	3	43	16	36	7	48	0	31	39
	300	3	34	0	—	0	—	0	—	1	52	0	—	0	—	0	—	2	48	1	25	17	48	6	50	0	30	47
	250	4	42	0	—	0	—	0	—	1	83	0	—	0	—	0	—	2	70	3	65	8	51	7	72	0	25	64
	200	5	66	0	—	0	—	0	—	1	100	0	—	0	—	0	—	1	52	4	65	6	88	5	77	0	22	75
	150	0	—	1	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	58	5	74	1	109	0	10	75
	100	1	110	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	82	1	61	2	37	0	5	65
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	42	0	2	42
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within 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 — MAY 1976

Station	Pressure Surface (Millibar)	Wind within 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		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	20	11	0	—	0	—	1	8	1	10	0	—	0	—	0	—	1	5	0	—	0	—	5	13	1	29	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	8	14	6	12	0	—	1	9	0	—	1	8	0	—	0	—	0	—	1	10	3	18	8	12	0	28	13
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	24	3	17	4	25	4	18	3	25	0	17	22
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	28	6	30	6	23	1	50	0	17	28
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	32	10	34	3	32	0	—	0	15	33
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	36	10	42	2	46	0	—	0	14	41
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	50	7	52	3	54	0	—	0	13	52
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	42	6	50	3	66	0	—	0	13	52
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	59	5	57	1	56	0	—	0	11	58
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	47	3	60	2	60	0	—	0	9	54
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	1	35	1	50	1	38	0	—	0	4	37
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	0	—	0	—	0	—	0	1	12
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	12	12	4	08	0	—	1	06	0	—	3	12	1	05	0	—	0	—	1	05	4	10	4	12	1	31	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	6	13	2	20	4	09	2	10	1	07	0	—	2	17	1	16	1	03	0	—	5	14	6	13	0	30	13
	700	3	09	1	07	1	17	0	—	0	—	1	05	0	—	1	10	5	22	8	19	4	19	4	25	0	28	18
	600	3	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	23	7	28	5	22	3	19	0	24	23
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	25	11	32	4	24	1	25	0	24	29
	400	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	46	15	39	3	33	1	38	0	25	39
	300	1	44	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	55	10	51	4	53	3	45	0	23	51
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	62	13	55	2	49	4	63	0	23	58
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	59	8	64	2	60	2	79	0	19	63
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	49	6	61	1	70	0	—	0	14	56
	100	0	—	0	—	0	—	0	—	0	—	1	22	0	—	1	15	8	27	1	26	1	37	0	—	0	12	26
	70	0	—	0	—	0	—	0	—	1	40	0	—	1	15	0	—	0	—	0	—	1	18	0	—	0	3	24
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

MONTHLY REVIEW OF AGRO—METEOROLOGICAL STATIONS

MARSA MATRUH — MAY 1976

The mean daily air temperature was the same as normal, and the mean relative humidity was above normal. The total monthly rainfall was 8.5 mm. against 3.0 mm. for normal.

The month was intervened by a heat wave during the period (4th - 7th) yielding the highest maximum air temperature (35.0°c) on the 7th, and two light warm spells on the (10th & 11th) and (29th). In the rest of the month, weather was generally mild.

The mean daily actual sunshine duration was lower than normal by 1.2 hour. The mean daily wind speed at 1.5 m. height was nearly the same as the corresponding value of May 1975.

The highest maximum soil temperatures were lower than May 1975 at all depths with departures between 3.3°c (at 2 cm.) and 0.8°c (at 100 cm.). The lowest minimum soil temperatures were higher than May 1975 at all depths except those at 20 & 50 cm. which were lower than May 1975 by 0.6° & 1.1°c respectively, the departures varied between 0.1° & 0.7°c.

TAHRIR — MAY 1976

The mean daily air temperature and relative humidity were nearly the same as normal. The total monthly rainfall was 1.3 mm. against 4.9 mm. for normal.

The month was intervened by a pronounced heat wave during the period (4th - 8th) yielding the highest maximum air temperature (40.4°c) on the 8th, and two light heat waves the 18th & 23rd. In the rest of the month; weather was generally mild.

The mean daily wind speed at 1.5 m. height was the same as normal. The mean daily actual sunshine duration and pan evaporation were lower than normal by 0.9 hour & 1.85 mm. respectively

The highest maximum soil temperature was lower than average at all depths except at 10 cm.where it was higher than normal by 0.6°c; the departures varied between 1.2°c (at 2 cm.) and 0.1°c (at 20 cm.) The lowest minimum soil temperature was lower than normal at all depths except at 2 & 20 cm. where it was higher than normal. by 1.0° & 0.7°c respectively; the departures varied between 0.7° & 0.1°c.

BAHTIM—MAY 1976

The mean daily air temperature was slightly above average and the mean daily relative humidity was slightly below average. The month was rainless apart from 0.2 mm. on the 18th.

Weather was characterized by a pronounced heat wave in the period (3rd - 8th) yielding the highest maximum air temperature (42.1°c) on the 8th and three light heat waves in the periods (11th-13th) ; 18th & 23rd. In the rest of the month, mild weather was experienced.

The mean daily actual sunshine duration was lower than average by 0.4 hour. The mean daily wind speed at 1.5 m. height and pan evaporation were nearly the same as average.

The highest maximum soil temperatures were higher than average at all depths with departures between 4.7°c (at 2 cm.) and 0.5°c (at 100 cm.).

The lowest minmum soil temperatures were higher than average at all depths except at 5 cm. where it was the same as average; the departures varied between 0.3° & 0.6°C.

KHARGA — MAY 1976

The mean daily air temperature was above normal and the mean daily relative humidity was nearly the same as normal.

Weather was characterized by five heat waves in the periods (1 zt & 2nd), (4th - 8th), (11th - 13th), (17th & 18th) and (30th & 31st). The second wave yielded the highest maximum air temperature (44. 8°c) on the 8th. In the rest of the month weather was generally mild.

The mean daily actual sunshine duration, wind speed at 1.5 m. height and pan evaporation were lower than normal by 0.3 hour, 0.9 m./sec. and 2.44 .mm. respectively.

The highest maximum soil temperature was the sam as average at 2 cm., higher at 50 cm. by 0.9°c. and lower than average at óther depths with departures between 2.9°c (at 10 cm.) and 0.3°c (at 100 cm.) The lowest minmum soil temperature was lower than average at all depths except at 50 cm. where it was higher by 0.1°c ; the departures varied between 3.5°c (at 2 cm.) and 0.3°c (at 100 cm.)

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

MAY — 1976

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°
Mersa Matruh. . .	24.9	15.5	20.0	17.7	20.8	24.0	24.0	24.0	24.0	22.5	11.2	1.7	0.1	0.0	0.0	0.0
Tahrir	32.6	15.3	23.1	18.8	24.8	24.0	24.0	24.0	24.0	22.8	15.2	10.0	3.5	0.4	0.0	0.0
Bahtim	32.3	14.6	23.3	18.6	25.1	24.0	24.0	24.0	24.0	21.9	15.2	9.5	3.6	0.5	0.1	0.0
kharga	38.1	24.3	31.5	28.7	32.5	24.0	24.0	24.0	24.0	24.0	24.0	22.0	13.9	5.5	1.3	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 — 1976

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
Matruh	35.0	7	21.4	8,14	19.2	7	12.8	2	10.0	2	—	—
Tahrir	40.4	8	27.4	14	19.8	8	11.1	2	9.6	2	—	—
Bahtim	42.1	8	27.2	14	18.7	18	10.4	3	7.0	3,22	6.1	3
Kharga	44.8	8	31.8	15	28.0	2	18.0	22	14.8	22	—	—

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

MAY — 1976

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
Matruh.	—	295.2	462.5	69	73	59	21	4	12.6	12.7	18.0	30	7.0	11	5.3	—	8.5	6.3	18
Tahrir	—	319.4	424.7	75	58	32	21	23	11.5	10.5	15.2	8,17	7.3	23	7.1	9.08	1.3	0.8	11
Bahtim	—	317.4	423.7	75	53	28	12	8	10.4	9.1	14.4	8, 9	6.3	2	10.4	10.64	0.2	0.2	18
Kharga	—	345.1	414.0	83	22	15	6	17	7.2	7.1	12.3	12	2.8	21	18.3	17.59	0.0	0.0	—

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

MAY — 1976

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
Matruh	H	37.6	35.8	31.3	27.0	24.5	22.5	21.4	—	—	—	—	—	—	—	—	—
	L	18.2	18.7	18.4	19.4	20.4	20.4	20.2	—	—	—	—	—	—	—	—	—
Tahrir	H	50.4	44.9	39.2	33.4	29.2	26.7	24.5	23.7	36.7	32.9	29.9	27.0	26.3	24.8	23.5	—
	L	21.9	20.2	20.5	23.6	24.2	23.3	22.1	22.0	19.7	19.2	19.0	20.4	21.4	21.8	21.2	—
Bahtim	H	56.6	46.8	38.0	31.5	28.2	26.0	24.2	23.5	47.9	31.8	30.6	27.6	25.9	22.7	20.6	—
	L	22.4	21.4	22.5	25.2	24.6	23.4	22.7	23.0	19.2	18.3	18.8	20.3	21.4	20.1	19.2	—
Kharga . . .	H	56.8	51.2	45.0	38.2	31.7	30.2	27.8	27.4	—	—	—	—	—	—	—	—
	L	20.1	23.1	26.2	30.5	28.4	27.5	26.1	26.5	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

MAY — 1976

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.	3.5	2.3	4.6	31	27	11	5	2	1	0	44	17
Tahrir	2.4	1.7	3.0	31	20	6	0	0	0	0	34	23
Bahtim	2.4	1.6	3.2	31	18	3	1	0	0	0	37	8
Kharga. . . .	3.1	2.6	3.6	31	27	17	5	1	0	0	42	13

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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 several 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 Reportserved to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean balues 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 representatibe 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 19 NUMBER 6

JUNE, 1976

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on tables please refer to Volume 19, Number 1 (January 1972).

GENERAL SUMMARY OF WEATHER CONDITIONS

JUNE 1976

Normal summer weather with two intense heat waves

PRESSURE DISTRIBUTION

The Pressure was mainly influenced as normal by the complex monsoon low & the high pressure prevailing over central Mediterranean apart from a depression which passed through East Mediterranean on the 8*th*.

The mean atmospheric pressure was in general slightly above normal.

SURFACE WIND

Surface winds were mostly N-ly & NW-ly light to moderate, freshened during several days in scattered places.

TEMPERATURE

Two heat waves prevailed during the periods (6*th*-9*th*) & (26*th*-28*th*). The first was intense all over the country. The second was light in north and intense in Upper Egypt.

Maximum air temperatcres showed moderate to large departures above normal during the heat waves and slight to moderate departures below normal otherwise.

Minimum air temperatures behaved approximately the same as minimum air temperatures. Their departures from normal were slight to moderate.

The highest and lowest maximum air temperatures were respectively 47.2°C at Qena on the 27th and 23.0°C at Mersa Matruh on the the 2 nd.

The highest and lowest minimum air temperatures were respectively 31.6°C at Kharga on the 27*th* and 12.9°C at Tahrir on the 4*th*.

PRECIPITATION

Apart from light rain over few places on the 9*th* no rain was reported.

OTHER WEATHER PHENOMENA

Early morning mist formed during several days over Delta & Cairo.

Light rising sand occurred during few days over scattered places in Upper Egypt, Western Desert & Red Sea districts.

Chairman (M. S. EL DIN HARB)

Board of Directors

Cairo, March 1979

SURFACE DATA

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

JUNE— 1976

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	1013.9	+1.1	28.0	—1.7	20.0	—0.1	24.0	23.8	—0.7	19.4	—0.4	66	+ 6	—	—	—	7.7
Mersa Matruh (A)	1013.9	+1.2	26.2	—2.0	17.5	—0.8	21.8	22.2	—1.2	19.5	—0.1	80	+11	359.9	425.3	85	4.9
Alexandria (A)	1013.0	+1.2	27.9	—0.8	19.4	—0.8	23.6	23.5	—0.9	19.6	—0.9	69	— 1	363.5	421.5	86	4.2
Port Said (A)	1011.1	+0.2	27.8	—0.8	20.6	—1.8	24.2	24.3	— 0.7	20.8	—0.5	73	+ 2	346.8	424.5	82	3.2
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1012.0	+1.0	32.1	—1.9	16.7	—0.4	24.4	24.0	—2.0	18.9	—0.7	63	+10	351.6	422.5	83	5.3
Cairo (A)	1011.4	+0.5	33.7	—1.1	19.4	—0.8	26.6	26.1	—1.1	19.0	—0.6	52	+ 6	—	—	—	13.5
Fayoum	—	—	35.9	—0.2	18.5	—1.4	27.2	27.2	—1.4	18.8	—0.7	45	+ 6	—	—	—	10.3
Minya (A)	1010.5	+0.8	36.1	—0.5	18.4	—0.7	27.2	27.5	—0.5	18.5	—0.5	42	+ 3	377.8	416.5	91	18.6
Assyout (A)	1010.1	+1.2	35.9	—1.9	20.1	—1.5	28.0	28.5	—1.5	16.9	—1.3	28	+ 1	—	—	—	20.5
Luxor (A)	1007.3	+0.5	40.5	—0.6	21.9	—0.8	31.2	31.4	—1.2	18.7	—0.6	26	+ 3	—	—	—	12.8
Aswan (A)	1006.8	+0.5	40.8	—1.3	24.3	+0.1	32.6	32.8	—1.0	17.0	—0.4	14	+ 2	375.3	405.8	92	25.9
Siwa	1012.3	+0.5	36.5	—0.9	19.8	+0.3	28.2	28.4	—1.0	17.8	—0.4	33	+ 4	348.9	419.1	83	16.9
Bahariya	1010.9	+0.2	34.9	—1.7	19.4	—0.3	27.2	28.1	—1.3	17.5	—1.0	33	+ 2	—	—	—	13.0
Farafra	1012.1	+0.5	37.5	—0.2	20.2	—0.1	28.8	28.9	—0.5	16.7	—0.4	25	+ 1	—	—	—	19.5
Dakhla	1010.6	+1.0	38.2	—0.3	21.0	—1.4	29.6	30.2	—0.8	17.5	—0.2	25	+ 5	—	—	—	21.5
Kharga	1008.9	+0.8	38.8	—0.5	25.4	+2.0	32.1	32.4	+0.2	17.7	—0.1	23	+ 2	363.6	409.7	89	19.8
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1007.3	+0.4	32.0	—0.2	23.6	0.0	27.8	28.1	—0.6	19.7	—0.6	42	—1	374.7	415.5	91	15.9
Quseir	1006.3	—1.0	31.1	—1.2	24.9	—0.6	28.0	28.1	—0.9	20.8	0.0	49	+5	—	—	—	11.9

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURE

JUNE — 1976

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	33.7	6	24.7	1	28	3	0	0	0	17.6	—	23.5	26,27	17.6	12	0	0	0	0
Mersa Matruh (A)	31.0	7	23.0	2	20	1	0	0	0	15.8	—	20.7	27	15.4	3	0	0	0	0
Alexandria . (A)	31.8	7	26.1	13	30	4	0	0	0	17.0	—	22.2	30	15.5	3,18	0	0	0	0
Port said . . (A)	32.0	8	26.8	4	30	4	0	0	0	19.6	—	23.5	28	18.7	24	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	40.5	8	27.8	14	30	26	3	1	0	—	—	18.6	9	14.4	4	0	0	0	0
Cairo . . . (A)	42.0	8	29.7	10	30	29	6	1	0	—	—	22.4	27	17.0	15	0	0	0	0
Fayoum	43.0	8	31.5	10,14	30	30	16	3	0	16.6	—	22.0	8,9	15.0	22	0	0	0	0
Minya . . . (A)	44.0	9	31.8	11	30	30	15	5	0	17.0	—	22.5	28	15.4	22	0	0	0	0
Assyout . . (A)	43.1	9	31.2	11	30	30	13	5	0	—	—	24.4	9	17.0	17	0	0	0	0
Luxor . . . (A)	47.0	27	36.1	11	30	30	30	14	3	14.4	—	25.4	29	19.5	16	0	0	0	0
Aswan . . . (A)	46.0	28	36.0	15	30	30	30	18	3	—	—	28.4	28	21.0	16	0	0	0	0
Siwa	42.0	26	32.0	10	30	30	20	3	0	17.6	—	23.0	26	17.0	12	0	0	0	0
Bahariya	43.0	27	31.6	11	30	30	20	5	0	18.9	—	25.5	27	16.7	12	0	0	0	0
Farafra	45.0	9	32.4	11	30	30	24	8	0	18.5	—	25.5	8	15.6	15	0	0	0	0
Dakhla	45.2	27	33.4	11.12	30	30	25	9	1	21.0	—	24.8	10	14.8	15	0	0	0	0
Kharga	46.0	27	33.6	11	30	30	27	8	3	22.9	—	31.6	27	22.2	13	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . .	38.2	9	29.4	16	30	29	2	0	0	—	—	26.8	28	20.8	16	0	0	0	0
Quseir	37.6	9	29.0	11	30	19	1	0	0	22.8	—	27.2	9,28	21.7	16	0	0	0	0

Table A2.—SKY COVER AND RAINFALL

JUNE — 1976

Station	Mean Sky Cover Oct.					Rainfall mms										
	00 U.T,	60 U.T.	12 U.T.	18 U.T.	Daily Mean	Total amount	Dev. From Mormal	Max. Fall in on day		Number of Days with Amount of Rain						
								Amount	Date	<1.0	≥0.1	≥0.1	≥5.0	≥10	≥25	≥50
Sallum	1.7	2.0	1.5	0.7	1.4	Tr.	— 0.4	Tr.	26	1	0	0	0	0	0	0
Mersa Matruh (A)	1.0	2.2	1.2	1.6	1.3	0.0	— 2.5	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	1.3	2.2	2.6	1.6	1.9	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Port Said (A)	1.0	2.0	0.5	0.6	0.9	Tr.	— 0.0	Tr.	9	1	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.4	1.6	0.3	0.1	0.5	0.2	+ 0.2	0.2	9	0	1	0	0	0	0	0
Cairo	0.7	1.6	0.5	0.1	0.7	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.0	0.0	0.0	—	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Miny (A)	0.1	0.5	0.0	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)	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.0	0.3	0.2	0.0	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	0.0	0.4	0.5	0.5	0.3	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Bahariya	0.1	0.1	0.1	0.1	0.1	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Farafra.	—	0.0	0.1	0.0	—	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	0.0	0.0	0.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurgada	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.0	0.0	0.0	0.1	0.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0

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

JUNE — 1976

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	4	0	0	21	0
Mersa Matruh (A)	0	0	0	0	0	0	20	1	3	0	5	0	0	22	0
Alexandira (A)	0	0	0	0	0	0	4	0	0	0	0	0	0	18	0
Port Said (A)	0	0	0	0	0	0	1	0	0	0	0	0	0	27	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1	0	0	0	0	0	3	0	0	0	0	0	0	28	0
Cairo (A)	0	0	0	0	0	0	17	0	0	0	1	0	0	27	0
Fayoum	0	0	0	0	0	0	0	0	0	0	1	0	0	—	—
Minya (A)	0	0	0	0	0	0	3	0	0	0	6	1	0	30	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	8	0	0	30	0
Luxor (A)	0	0	0	0	0	0	0	0	7	0	7	0	0	30	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	9	0	0	30	0
Siwa	0	0	0	0	0	0	0	0	0	0	1	0	0	29	0
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	3	1	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	7	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	1	0	12	0	0	30	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0

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

JUNE 1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing within 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 . . .	8	17	0	1—10	86	104	93	63	21	5	4	12	13	24	71	66	562
				11—27	8	46	11	7	0	0	0	0	8	0	22	39	133
				28—47	0	0	0	0	0	0	0	0	2	0	0	0	0
				≥48	0	0		0	0	0	0	0	0	0	0	0	0
				All speeds	**94**	**159**	**104**	**70**	**21**	**5**	**4**	**12**	**13**	**24**	**93**	**105**	**695**
Mersa Matruh . .	48	0	0	1—10	54	39	29	11	2	9	6	8	50	75	52	169	504
				11—27	16	22	6	0	0	0	0	0	0	0	25	99	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	**70**	**61**	**35**	**11**	**2**	**9**	**6**	**8**	**50**	**75**	**77**	**263**	**672**
Alexandria	12	1	0	1—10	119	45	9	4	3	5	0	1	1	3	53	339	582
				11—27	6	2	0	0	0	0	0	0	0	0	13	104	125
				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	**125**	**47**	**9**	**4**	**3**	**5**	**0**	**1**	**1**	**3**	**66**	**443**	**707**
Tanta	16	0	0	1—10	101	74	45	12	3	1	2	11	24	34	96	121	524
				11—27	96	9	13	0	0	0	0	0	0	0	10	52	180
				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	**197**	**83**	**58**	**12**	**3**	**6**	**2**	**11**	**24**	**34**	**106**	**173**	**704**
Cairo	36	0	0	1—10	91	104	32	4	0	0	0	0	6	31	65	135	468
				11—27	65	32	8	5	0	0	0	0	0	3	22	81	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	**156**	**136**	**40**	**9**	**0**	**0**	**0**	**0**	**6**	**34**	**87**	**216**	**684**
Fayoum	5	3	0	1—10	192	391	16	2	1	0	2	3	5	4	10	58	684
				11—27	0	28	0	0	0	0	0	0	0	0	0	0	28
				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**	**419**	**16**	**2**	**1**	**0**	**2**	**3**	**5**	**4**	**10**	**58**	**712**
Minya	6	1	0	1—10	125	25	0	0	1	3	6	0	3	2	7	52	224
				11—27	450	16	0	0	0	0	0	0	0	0	6	17	489
				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	**575**	**41**	**0**	**0**	**1**	**3**	**6**	**0**	**3**	**2**	**13**	**89**	**713**
Aout(A)	0	0	0	1—10	118	53	7	3	3	3	2	0	3	4	25	100	321
				11—27	267	23	0	0	0	0	0	0	0	0	2	100	392
				28—47	3	3	0	0	0	0	0	0	0	0	0	1	7
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**388**	**79**	**7**	**3**	**3**	**3**	**2**	**0**	**3**	**4**	**27**	**201**	**720**

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

JUNE — 1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number id hours of occurrences of wind blowing within 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) . .	119	0	0	1-10	133	66	17	9	4	13	45	31	15	39	92	98	**562**
				11-27	4	0	0	0	0	0	0	0	0	0	5	30	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	**137**	**66**	**17**	**9**	**4**	**13**	**45**	**31**	**15**	**39**	**97**	**128**	**601**
Aswan . (A) . . .	4	0	0	1-10	98	47	8	3	7	8	5	2	2	5	27	147	359
				11-27	68	45	0	0	1	2	0	0	0	0	28	210	354
				28-47	3	0	0	0	0	0	0	0	0	0	0	0	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**169**	**92**	**8**	**3**	**8**	**10**	**5**	**2**	**2**	**5**	**55**	**357**	**716**
Siwa	28	7	0	1-10	45	96	123	123	48	46	16	7	6	15	34	57	616
				11-27	5	14	14	23	8	0	0	0	0	0	0	5	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	**50**	**110**	**137**	**146**	**56**	**46**	**16**	**7**	**6**	**15**	**34**	**62**	**685**
Dakhla	3	5	0	1-10	114	53	27	23	13	7	23	21	31	17	45	146	520
				11-27	100	46	0	0	0	0	3	0	0	0	3	43	192
				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	**214**	**99**	**27**	**23**	**13**	**7**	**23**	**21**	**31**	**17**	**48**	**189**	**712**
Kharga	2	0	0	1-10	230	38	12	5	0	2	0	0	1	4	5	36	333
				11-27	361	9	0	0	0	0	0	0	0	0	0	12	382
				28-47	3	0	0	0	0	0	0	0	0	0	0	0	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**594**	**47**	**12**	**5**	**0**	**2**	**0**	**0**	**1**	**4**	**5**	**48**	**718**
Hurghada	3	0	0	1-10	19	22	9	5	3	7	0	3	1	5	83	28	185
				11-27	130	11	0	0	0	0	0	0	0	1	108	282	532
				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	**149**	**33**	**9**	**5**	**3**	**7**	**0**	**3**	**1**	**6**	**191**	**310**	**717**
Quseir	2	1	0	1-10	79	18	1	2	1	5	6	6	4	33	87	139	381
				11-27	107	0	6	0	0	0	0	0	0	0	14	215	336
				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	**186**	**18**	**1**	**2**	**1**	**5**	**6**	**6**	**4**	**33**	**101**	**354**	**717**

UPPER AIR CLIMATOLOGICAL DATA

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

JUNE — 1976

Helwan 0000 U.T.

Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew point (°C)	
	N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Surface	30	99*m'.	999*mb.	992*mb.	30	21.5	26.4	19.4	30	14.1
1000	30	103	131	071	—	—	—	—	—	—
850	30	1501	1528	1476	28	17.2	24.7	11.2	28	1.4
700	30	3138	3199	3096	30	9.4	12.6	5.1	29	— 9.1
600	30	4399	4471	4354	29	1.2	4.8	— 4.4	29	—16.1
500	30	5869	5923	5615	30	— 8.0	— 5.1	—12.4	30	—24.2
400	30	7541	7624	7433	30	—19.5	—13.7	—25.0	30	—37.9
300	30	9623	9729	9476	30	—33.1	—28.1	—39.5	30	—46.3
250	30	10885	11001	10741	30	—41.1	—37.0	—49.4	29	—53.1
200	28	12375	12494	12128	28	—50.2	—47.6	—57.5	27	—61.0
150	27	14221	14343	13943	27	—59.7	—57.5	—63.3	16	—68.4
100	23	16709	16805	16501	23	—69.0	—60.0	—79.5	—	—
70	14	18820	18974	18661	14	—67.7	—63.7	—72.0	—	—
60	12	19768	19900	19590	12	65.5	—62.2	—68.6	—	—
50	12	20849	20904	20394	12	—62.1	—58.1	—67.8	—	—
40	7	22296	22350	22130	7	—58.2	—54.7	—61.3	—	—
30	5	24031	24128	24015	5	—54.8	—51.3	—57.5	—	—
20	2	26702	26790	16615	2	—49.8	—47.2	—52.3	—	—
10	—	—	—	—	—	—	—	—	—	—

N = Number of observations of the specified pressure surface.

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

Note: Climatological upper air data for Mersa Matruh and Aswan upper air stations are missing since no observations were taken at these stations during this month.

UPPER AIR CLIMATOLOGICAL DATA

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

JUNE — 1976

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	* 1011m.b.	* 1015m.b.	* 1008m.b.	29	25.3	27.5	23.0	29	17.9
	1000 . . .	29	126	158	98	29	23.8	27.7	18.0	29	15.9
	850 . . .	29	1527	1570	1492	29	16.4	23.5	12.0	29	— 0.1
	700 . . .	29	3149	3212	3090	29	7.1	10.9	2.4	29	— 9.4
	600 . . .	28	4401	4[illegible]2	4324	28	— 0.5	4.3	— 4.0	28	—16.1
	500 . . .	28	5833	5894	5755	28	—10.4	— 5.0	—15.2	28	—25.1
	400 . . .	28	7512	7606	7397	28	—22.2	—15.7	—27.5	28	—36.8
	300 . . .	27	9571	9699	9439	27	—31.1	—31.4	—41.0	27	—47.9
	250 . . .	27	10[illegible]13	10971	10669	27	—43.1	—39.1	—50.0	27	—40.0
	200 . . .	27	12297	12467	12131	27	—51.2	—47.1	—57.8	26	—62.1
	150 . . .	26	14131	14397	13960	26	—59.9	—55.0	—63.0	11	—66.7
	100 . . .	24	16605	16767	16385	24	—68.7	—65.2	—73.2	—	—
	70 . . .	17	18756	18885	18575	17	—65.3	—60.3	—72.3	—	—
	60 . . .	15	19745	19830	19550	15	—61.9	—59.2	—66.2	—	—
	50 . . .	15	20815	20985	20675	15	—58.4	—54.2	—64.7	—	—
	40 . . .	7	22424	22500	22390	7	—53.8	—62.7	—5[illegible]7	—	—
	30 . . .	7	24178	24275	24127	7	—49.8	—48.8	—50.5	—	—
	20 . . .	5	26884	26999	26825	5	—4[illegible].1	—43.7	—46.7	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface . . .	30	* 994m.b.	* 996 m.b.	* 991m.b.	30	32.3	40.6	28.0	30	07.8
	1000 . . .	29	091	120	062	—	—	—	—	—	—
	850 . . .	29	1520	1557	1482	29	19.7	3[illegible].0	13.4	28	01.1
	700 . . .	29	3137	3252	3121	29	11.3	15.9	08.6	29	—13.6
	600 . . .	29	4437	4732	4318	29	3.2	6.0	00.2	29	—19.0
	500 . . .	28	5890	5989	5[illegible]24	28	5.5	1.0	— 9.8	28	—26.7
	400 . . .	28	7608	7713	7517	28	— 16.7	—11.7	—21.1	28	—36.3
	300 . . .	27	9715	98[illegible]5	9579	27	—29.4	—24.5	—3[illegible].9	26	—46.7
	250 . . .	24	10920	11123	10823	24	—37.9	—33.2	—44.9	24	—53.4
	200 . . .	24	12500	12646	12289	24	—46.8	—42.3	—51.3	24	—60.8
	150 . . .	24	14371	14522	14112	24	—55.7	—50.1	—59.3	24	—67.4
	100 . . .	19	16899	17065	16683	19	—63.2	—55.9	—70.1	1	—70.1
	70 . . .	14	19060	19243	18879	14	—63.2	—52.0	—7[illegible].3	—	—
	60 . . .	10	20063	20210	19840	10	—55.9	—48.7	—60.0	—	—
	50 . . .	10	21192	21383	20970	10	—50.7	—44.7	—52.4	—	—
	40 . . .	8	22750	23000	22520	8	—45.3	—40.0	—51.6	—	—
	30 . . .	6	24566	24700	24304	6	—40.6	—37.3	—47.3	—	—
	20 . . .	5	27372	27554	27029	5	—34.0	—28.2	—41.7	—	—
	10 . . .	1	32430	—	—	1	—19.1	—	—	—	—
Aswan 1200 U.T.	Surface . . .	29	* 986m.b.	* 988m.b.	* 982m.b.	29	39.4	44.8	31.6	29	3.3
	1000 . . .	29	61	85	23	—	—	—	—	—	—
	850 . . .	29	1519	1550	1490	29	25.3	31.4	20.5	29	— 6.5
	700 . . .	29	3186	3241	3146	29	13.5	17.1	10.0	29	—15.7
	600 . . .	29	4460	4517	4415	29	4.4	7.7	2.0	29	—22.9
	500 . . .	29	5917	5987	5866	29	— 5.4	— 2.0	— 9.7	29	—30.5
	400 . . .	29	7637	7717	7573	29	—16.3	—13.7	—19.7	29	—39.5
	300 . . .	26	9741	9834	9676	25	—31.0	—27.8	—36.4	25	—51.1
	250 . . .	25	11010	11158	10935	25	—40.4	—38.9	—44.6	25	—58.7
	200 . . .	25	12499	12598	12410	25	—50.9	—49.3	—53.0	24	—67.1
	150 . . .	24	14321	14448	14224	24	—63.2	—58.8	—66.1	1	—74.8
	100 . . .	22	16741	16870	16650	22	—74.8	—71.7	—77.9	—	—
	70 . . .	19	18805	18916	18703	19	—72.9	—69.0	—79.7	—	—
	60 . . .	13	19781	19830	19600	13	—65.7	—61.6	—71.2	—	—
	50 . . .	13	20862	20935	20752	13	—60.1	—53.0	—67.5	—	—
	40 . . .	5	22386	22450	22300	5	—51.1	—52.6	—55.6	—	—
	30 . . .	4	24172	24233	24049	4	—47.9	—45.9	—50.0	—	—
	20 . . .	1	26959	—	—	1	—43.2	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—		

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

Atmospheric pressure corrected to the elevation of the radiosonde station

Note: No upper air observations were taken at Mersa Matruh and Aswan at 0000 U.T.

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

JUNE — 1976

	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
0000 .U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			—
	Helwan . . .	4571 (30)	588 (30)	—17.0 (30)	5130	550	—13.9	3800	642	—10.4	15821 (15)	118 (15)	—67.5 (15)	17460	089	—69.1	12050	204	—57.7	8414	276	215	70
	Aswan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			—
1200 .U.T.		(N)	(N)	(N)							(N)	(N)	N)										
	Mersa Matruh.	4352 (28)	604 (28)	—15.7 (28)	5230	543	—10.1	3780	645	—9.1	15628 (17)	121 (17)	—67.6 (17)	17360	088	—70.3	11900	208	—58.8	11991	207	200	125
	Helwan . . .	4951 (28)	564 (28)	—20.66 (28)	5799	510	—26.0	4380	599	—16.3	15125 (11)	132 (11)	—60.7 (11)	17740	088	—67.8	12200	206	—50.3	11680	228	280	150
	Aswan	5109 (29)	555 (29)	—26.0 (29)	5640	520	—29.0	4690	582	—22.7	16970 (16)	098 (16)	—76.3 (16)	18260	078	—77.3	15100	131	—69.4	14375	147	170	80

Z = 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.

M. MATRUH (A) — JUNE 1976

Observation	Pressure Surface (Millibar)	Wind within specified ranges of direction (000—360)°																								Number of calm winds	Total number of observations (TN)	Mean speed (wind speed in 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			
1200 U.T.	Surface	6	9	4	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	15	14	13	0	29	12
	1000	3	10	3	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	12	20	10	16	1	29	16
	850	3	12	0	—	1	6	0	—	0	—	0	—	0	—	1	11	2	13	8	15	7	14	7	20	0	29	15
	700	2	20	0	—	0	—	0	—	0	—	0	—	0	—	1	10	8	26	11	17	5	41	2	30	0	29	21
	600	0	—	0	—	0	—	0	—	0	—	0	—	1	35	1	27	10	29	10	21	6	24	0	—	0	28	25
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	10	12	27	7	26	4	28	0	—	0	27	24
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	45	15	34	8	36	0	—	0	—	0	26	36
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	65	10	53	6	47	0	—	0	—	0	25	56
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	11	70	10	66	3	61	1	98	0	—	0	25	68
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	66	10	72	2	58	0	—	0	—	0	20	68
	150	0	—	0	—	0	—	0	—	0	—	0	—	1	44	7	49	8	54	2	50	0	—	0	—	0	18	51
	100	0	—	0	—	0	—	0	—	0	—	0	—	4	20	4	34	3	38	0	—	0	—	0	—	0	11	28
	70	0	—		—	0	—	0	—	1	18	1	18	2	11	1	25	0	—	0	—	0	—	0	—	0	5	17
	60	0	—		—	0	—	1	17	0	—	2	21	0	—	0	—	0	—	0	—	0	—	0	—	0	3	20
	50	0	—	0	—	0	—	1	26	2	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	21
	40	0	—	0	—	0	—	2	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	26
	30	0	—	0	—	0	—	1	17	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	17
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within 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 B3—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES HELWAN—JUNE 1976

Observation	Pressure Surface (Millibar.)	Wind Within 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	8	6	8	4	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	8	0	30	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	10	15	10	14	4	20	1	24	0	—	0	—	0	—	0	—	1	11	0	—	3	10	1	6	0	30	15
	700	3	22	4	20	1	15	0	—	0	—	0	—	0	—	0	—	2	10	5	12	4	27	11	18	0	30	15
	600	4	22	2	14	0	—	0	—	0	—	0	—	0	—	0	—	3	12	6	18	8	23	7	21	0	30	21
	500	1	16	0	—	1	12	0	—	0	—	0	—	0	—	0	—	2	30	12	27	11	28	3	28	0	30	27
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	27	4	31	11	40	11	42	1	37	0	28	39
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	5	79	9	50	10	65	2	32	0	27	58
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	63	8	53	8	62	0	—	0	24	59
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	65	4	75	6	76	0	—	0	17	71
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	78	4	73	1	62	0	—	0	10	76
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	88	0	—	0	—	0	1	88
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	10	11	6	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	12	11	10	0	30	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—
	850	6	10	11	11	6	19	0	—	0	—	0	—	0	—	0	—	1	06	1	22	2	13	2	15	—	29	13
	700	1	05	4	19	2	28	0	—	0	—	0	—	0	—	0	—	4	17	4	15	7	14	7	21	0	29	15
	600	2	12	2	26	0	—	0	—	0	—	0	—	1	11	0	—	4	20	7	21	8	20	5	24	0	29	21
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	23	15	24	7	33	4	20	0	28	27
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	42	12	30	9	40	2	45	0	28	40
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	57	10	55	6	62	1	68	0	24	58
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	65	7	75	5	60	1	80	0	20	70
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	53	8	63	3	89	0	—	0	17	63
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	53	2	49	1	80	0	—	0	8	57
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	25	0	—	0	1	25
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within 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 (0000) U.T. — JUNE 1976

Time	Pressure Surface (Millibar)	Wind within 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			
1200 U.T.	Surface	16	12	0	—	0	—	0	—	1	4	1	10	1	10	0	—	0	—	0	—	2	6	8	11	0	29	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	10	1	12	0	—	0	—	0	—	0	—	0	—	2	4	3	6	0	—	6	12	14	15	0	29	12
	700	1	13	0	—	0	—	0	—	2	6	1	4	1	2	6	15	2	20	5	12	3	25	8	15	0	29	14
	600	0	—	0	—	2	3	0	—	1	9	1	12	1	17	8	16	2	20	4	22	7	13	2	4	0	28	14
	500	3	15	1	4	0	—	2	8	1	7	1	11	1	5	4	18	3	20	5	15	5	15	2	8	0	28	[illegible]
	400	1	9	0	—	2	12	0	—	3	9	1	11	3	12	3	26	4	15	7	21	4	15	0	—	0	28	[illegible]
	300	0	—	0	—	1	9	0	—	3	9	1	11	7	31	2	24	3	27	8	29	1	44	0	—	0	26	26
	250	0	—	0	—	2	8	0	—	2	15	2	24	5	29	3	27	4	28	7	38	0	—	0	—	0	25	28
	200	0	—	0	—	0	—	0	—	2	16	7	21	4	32	4	22	5	35	4	30	0	—	0	—	0	25	31
	150	0	—	0	—	0	—	0	—	5	28	4	40	6	39	4	28	5	35	0	—	0	—	0	—	0	24	35
	100	0	—	0	—	0	—	1	32	8	28	6	36	0	—	1	20	4	16	2	14	0	—	0	—	0	22	26
	70	0	—	0	—	1	32	10	25	4	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	15	24
	60	0	—	0	—	2	35	6	32	3	23	1	24	0	—	0	—	0	—	0	—	0	—	0	—	0	12	39
	50	0	—	0	—	0	—	0	28	5	31	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	11	29
	40	0	—	0	—	0	—	2	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	19
	30	0	—	0	—	0	—	2	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	26
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

TN The number of cases the wind has been observed from all direction during the month.

REVIEW OF AGROMETEOROLOGICAL STATIONS

MERSA MATRUH — JUNE 1976

The mean daily air temperature was below normal, while the mean daily relative humidity was above normal.

Mild weather prevailed the whole month apart from a light heat wave on the 6*th* & 7*th* which yielded the highest maximum air temperature for the month (31.0°C) on the 7*th*.

The mean daily actual sunshine duration was higher than normal by 0.5 hour. The mean daily wind speed at 1.5 met. height was lower than June 1975 by 1.3 met./sec.

The highest maximum soil temperatures were lower than the corresponding values of June 1975 at all depths with departures between 4.6°C (at 2 cm.)and 0.4°C (at 100 cm.). The lowest minimum soil temperatures were also lower than June 1975 at all depths with departures between 0.2°C (at 10 cm.) and 1.8°C (at 50 cm.).

TAHRIR — JUNE 1976

The mean daily air temperature was lower than normal, while the mean daily relative humidity was slightly higher than normal.

Weather was generally mild apart from two heat waves during the periods (6*th* - 8*th*) and (24*th* 22*th*). The first wave yielded the highest maximum air temperature (41.6°C) on the 8*th*.

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaporation were lower than normal by 0.2 hour, 0.2 met./sec. and 2.34 mm. respectively.

The highest maximum soil temperatures were lower than average at all depths except those at 5 & 10 cm. depths which were both higher than average by 0.7°C ; the departures varied between 1.6° & 0.9°C. The lowest minimum soil temperatures were lower than average at all depths except those at 20° & 50 cm. which were higher than average by 0.3° & 0.5°C respectively ; the departures varied between 1.5° & 0.5°C.

BAHTIM — JUNE 1976

The mean daily air temperature was lower than average, and the mean daily relative humidity was nearly the same as average.

The month was intervened by a pronounced heat wave in the period (6th - 8th). In the rest of the month mild summer weather was experienced.

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaportion were lower than average by 0.9 hour, 0.3 met./sec. and 1.66mm. respectively.

The highest maximum soil temperatures were higher than average at depths between 2 & 20 cm. with departures between 3.2°C (at 5 cm.) and 0.1°C(at 20 cm.). The lowest minimum soil temperatures were also higher than average at depths between 2 & 20 cm. with departures between 0.3° & 0.8°C.

KHARGA — JUNE 1976

The mean daily air temperature and relative humidity were nearly the same as normal.

The month was intervened by three heat waves on the 1*st* and the periods (7*th* - 9*th*) and (25*th*-28*th*). The last wave yielded the highest maximum air temperatures (46.0°C) on the 27*th*. In the rest of the month, mild summer weather was experienced.

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaporation were lower than normal by 0.3 hour, 0.8 met./sec. and 3.10 mm. respectively.

The highest maximum soil temperatures were higher than average at depths between 2 & 20 cm. with departures between 0.1°C (at 2 cm.) and 3.2°C (at 10 cm.) ; but lower than average at 50 & 100 cm. depths by 0.7° & 0.2°C respectively. The lowest minimum soil temperatures were lower than average at all depths except those at 2 & 100 cm. which were higher than average by 1.3° & 0.3°C respectively ; the departures varied between 1.2°C (at 50 cm) & 0.1°C (at 50 cm.).

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

JUNE — 1976

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. .	26.2	17.5	22.3	20.0	23.0	24.0	24.0	24.0	24.0	24.0	17.9	4.6	0.03	0.0	0.0	0.0
Tahrir	33.4	16.6	24.1	20.2	25.0	24.0	24.0	24.0	24.0	23.7	17.5	10.5	4.4	0.4	0.03	0.0
Bahtim	32.8	18.2	24.6	20.3	26.4	24.0	24.0	24.0	24.0	23.6	17.6	11.1	5.6	0.04	0.0	0.0
Kharga	38.8	25.4	32.5	29.8	33.5	24.0	24.0	24.4	24.0	24.0	24.0	23.2	15.4	7.3	1.7	0.2

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 — 1976

STATION	Max. Temp. at 1½ metres				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above ground			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	value	Date	value	Date	value	Date	value	Date	Value	Date	Value	Date
Mersa Matruh. . .	31.0	7	23.0	2	29.7	27	15.4	3	12.2	4	—	—
Tahrir	41.6	8	29.7	10	19.9	28	12.9	4	11.6	4	10.8	4
Bahtim	×	—	×	—	×	—	×	—	9.6	15	8.5	15
Kharga	46.0	27	33.6	11	31.6	27	22.2	13	19.0	14,16	—	—

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

JUNE — 1976

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	12h0 U.T.	Lowest	Date	Mean of day	12h0 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
M. Matruh	—	359.9	425.3	85	79	66	42	6	15.9	16.2	20.1	16	11.1	7	4.9	—	0.0	0.0	—
Tahrir . .	—	364.1	422.3	86	64	37	26	8	14.0	12.9	18.	5	9.8	3	6.4	9.19	Tr.	Tr.	9
Bahtim . .	—	322.4	421.7	79	67	32	×	—	12.5	11.5	10.1	—	+	—	10.4	11.40	0.0	0.0	—
Kharga. .	—	363.6	409.7	89	23	16	8	27	8.0	7.9	6.9	7	3.8	1	19.8	20.67	0.0	0.0	—

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

JUNE — 1976

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	40.5	39.5	33.9	29.4	26.8	26.8	22.6	—	—	—	—	—	—	—	—	—
	L	23.0	21.9	22.0	23.9	24.2	22.6	21.2	—	—	—	—	—	—	—	—	—
Tahrir	H	53.1	48.9	42.6	35.6	31.3	29.0	26.5	25.4	34.4	32.6	30.8	28.4	27.5	26.6	25.5	—
	L	25.1	24.5	24.9	28.0	28.9	26.8	24.6	23.9	21.4	21.6	22.0	23.2	25.2	25.1	23.7	—
Bahtim	H	57.0	48.5	40.0	33.3	+	+	+	+	+	+	+	+	+	+	+	—
	L	28.8	26.8	26.8	29.2	+	+	+	+	+	+	+	+	+	+	+	—
Kharga	H	58.3	52.0	47.1	40.0	33.7	31.6	29.1	28.2	—	—	—	—	—	—	—	—
	L	22.0	23.5	27.4	31.0	31.5	30.3	28.0	27.3	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

JUNE — 1976

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at (10 metres)							Max.Gust 10 metre	
	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. .	3.0	1.8	4.3	30	22	6	0	0	0	0	25	26
Tahrir	2.3	1.4	3.2	30	26	1	0	0	0	0	29	9
Bahtim	2.5	1.5	3.5	30	17	1	0	0	0	0	30	1
Kharga . . .	4.3	3.4	5.2	30	29	19	6	1	1	0	41	18

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MONTHLY WEATHER REPORT

VOLUME 19 NUMBER 7

JULY, 1976

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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 several 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 19 NUMBER 7

JULY, 1976

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

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

JULY 1976

Mild summer weather in north, hot in south. Three short heat waves, mainly remarkable in Upper Egypt.

PRESSURE DISTRIBUTION

The pressure distribution was mainly influenced by the monsoon low pressure over Arabia & the Arabian gulf, and the high pressure over Central Mediterranean & Libya,

The mean atmospheric pressure over Egypt was generally above normal.

SURFACE WIND

The most prevailing winds were light to moderate N ly & NW ly ; freshened during few days in scattered places.

TEMPERATURE

Maximum air tempratures were rather normal in the Mediterranean district. Otherwise they were slightly below normal apart from three short heat waves which were mainly pronounced in Upper Egypt.

Minimum air temperatures showed irregular departures below and above normal in north and were mostly above normal in Upper Egypt. Departures from normal were slight to moderate.

The highest and lowest maximum air temperatures were respectively 44. O°C at Aswan on the 10th and 2.4°C at Sidi Barrani on the 4 th.

The highest and lowest minimum air temperatures were respectively 29. 6°C at Kharga on the 26th and 15.1°C at Bahtim on the 8 th.

PRECIPITATION

This month was rainless as usual.

OTHER WEATHER PHENOMENA

Early morning mist developed during several days over scattered places in Delta & Cairo.

Cairo, March 1979

Chairman (M.S. EL DIN HARB.)
Board of Directors

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

JULY — 1976

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.	1011 0	+0.5	31.0	+0.2	22.2	+0 9	26.6	26.2	+0.3	21.6	+0.4	66	+ 2	—	—	—	8.5
Mersa Matruh. (A)	1011.2	+1.2	28.4	—0.7	20.2	—0.2	24.3	24.5	—0.4	21.4	—0.1	77	+ 4	377.0	433.4	87	5.6
Alexandria . (A)	1010.4	+1.7	29.8	0.6	22.0	—0.6	25.9	25.7	—0.3	21.8	—0.5	70	— 2	368.9	432.1	85	4.2
Port Said.. . (A)	1008.6	+1.0	30.5	+0.5	22.2	—1.8	26.6	36.1	—0.3	22.3	—0.7	72	0	370.7	432.1	86	3.8
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1009.7	+1.3	31.7	—2.5	18.5	—0.4	25.1	24.7	—1.5	21.4	0 0	75	+ 12	375.1	431.1	87	3.9
Cairo . . . . (A)	1009.8	+1.7	33.4	—1.6	21.3	—0.2	27.4	27.0	—0.8	21 0	—0.2	59	+ 5	—	—	—	11.0
Fayoum.	—	—	36.7	0.0	20.4	—0.9	28.6	28.3	—0.3	21.0	+0.3	52	+ 6	—	—	—	8.5
Minya. . . . (A)	1008.6	+1.6	36.4	—0.3	20.3	+0.1	28.4	28.5	+0.1	20.6	+0.4	50	+ 6	386.3	425.3	91	1 .6
Assyout. . . (A)	1008.8	+2.0	35.7	—1.0	21.8	—0.4	28.8	29.2	—0.4	18.2	—1.3	32	— 3	—	—	—	19.7
Luxor. . . . (A)	1006.4	+1.5	39.6	—0.9	23.1	—0.5	31.4	31.7	—1.0	19.8	—0 1	30	+ 4	—	—	—	11.8
Aswan. . . . (A)	1003.2	+1.3	41.2	0.0	26.0	+1.5	33.6	33.4	—0.1	18.2	+0 1	17	+ 1	384.3	415.4	93	22.4
Siwa.	1010.5	+0.8	37.0	—0.8	22.1	+1.3	29.6	29.7	+0.1	20.0	+0.6	41	+ 8	385.0	427.5	90	13.6
Bahariya.	1009.0	+0.7	36.6	—0.3	21.5	+0.5	29.0	29.2	—0.3	19.2	—0.3	38	+ 3	—	—	—	11.9
Farafra.	1010.4	+0.8	37.8	—0.7	22.0	+0.8	29.9	30.1	+0.5	18.5	+0.7	30	+ 4	—	—	—	16.3
Dakhla	1008.9	+1.3	37.7	—0.8	22.2	—0.6	30.0	30.5	—0.5	18.3	0.0	27	+ 4	—	—	—	21.0
Kharga	1007.5	+1.3	38.8	—0.5	25.4	+2.1	32.1	32.8	+1.0	18.4	+0.1	24	0	383.2	419.0	91	17.4
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . .	1006.1	+1.6	32.7	—0.2	25.5	+0.6	29.1	29.3	—0.2	21.2	—0.2	46	— 1	390.6	422.7	92	13.3
Quseir	1005.1	0.0	31.6	—1.1	25.5	—0.7	28.6	28.8	—0.8	21.9	—0.2	52	+ 3	—	—	—	8.9

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

JULY — 1976

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	39.3	23	27.4	9	31	19	1	0	0	19.7	—	25.5	30	19.1	8	0	0	0	0
Mersa Matruh . (A)	31.8	23	27.2	4	31	3	0	0	0	19.1	—	23.4	30	17.0	6	0	0	0	0
Alexandria . . (A)	32.4	29	28.1	5	31	13	0	0	0	20.1	—	24.2	31	16.8	9	0	0	0	0
Port Said . . (A)	32.3	9	29.0	21	31	27	0	0	0	20.1	—	23.5	21	20.4	14	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	34.3	9	29.6	19	31	30	0	0	0	—	—	20.6	11	16.5	7	0	0	0	0
Cairo	36.6	30	31.6	27	31	31	4	0	0	—	—	24.4	30	19.7	23	0	0	0	0
Fayoum	40.5	30	35.0	19	31	31	30	2	0	18.6	—	22.2	27	18.2	3	0	0	0	0
Minya . . . . (A)	40.3	9	34.4	28	31	31	25	1	0	19.0	—	22.8	26	17.4	4	0	0	0	0
Assyout. . . . (A)	40.0	9	32.6	20	31	31	20	0	0	13.7	—	21.0	11	20.4	2	0	0	0	0
Luxor . . . . (A)	43.0	10	36.5	20	31	31	31	10	0	17.5	—	26.0	27	20.8	5	0	0	0	0
Aswan . . . . (A)	44.0	10	38.8	20	31	31	31	28	0	—	—	29.2	26	23.6	20	0	0	0	0
Siwa	42.2	9	34.2	26	31	31	28	4	0	19.4	—	25.4	25	19.6	2	0	0	0	0
Bahariya	41.1	25	34.8	4	31	31	28	2	0	20.4	—	25.0	30	19.6	29	0	0	0	0
Farafra	41.2	25	34.7	20	31	31	30	4	0	20.3	—	24.5	30	18.9	7	0	0	0	0
Dakhla	41.4	25	34.9	20	31	31	30	4	0	22.1	—	26.8	27	17.0	9	0	0	0	0
Kharga	43.0	30	37.0	5,20	31	31	31	6	0	22.2	—	29.6	26	21.8	10	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	35.2	25	30.4	16	31	31	1	0	0	—	—	27.6	11	23.3	4	0	0	0	0
Qusier	34.0	30	29.9	20	31	30	0	0	0	23.0	—	27.8	31	23.0	21	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

JULY — 1976

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	1.5	1.2	1.7	1.0	1.3	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Mersa Matruh . . (A)	1.0	2.7	1.2	1.6	1.6	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Alexandria . . . . (A)	2.5	3.4	3.8	1.6	2.8	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Port Said . . . . (A)	1.9	2.4	0.2	0.4	1.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	--	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.0	2.1	1.5	0.0	0.8	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Cairo . . . . . (A)	0.6	3.4	0.8	0.1	1.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.7	0.0	0.2	—	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Minya . . . . . (A)	0.0	1.5	0.1	0.2	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Assyout. . . . . (A)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Luxor . . . . . (A)	0.0	0.6	0.4	0.2	0.4	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan . . . . . (A)	0.2	0.9	1.0	0.6	0.6	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	0.0	0.0	0.2	0.4	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Bahariya	0.0	0.4	0.2	0.1	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.1	0.1	0.5	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.1	0.3	0.1	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—
Hurghada	0·0	0.5	0.2	0.2	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.1	0.5	0.2	0.1	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0

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

JULY — 1976

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	3	0	0	22	0
Mersa Matruh . . . (A)	0	0	0	0	0	0	20	0	4	0	9	0	0	18	0
Alexandria . . . . . (A)	0	0	0	0	0	0	1	1	0	0	0	0	0	10	0
Port Said . . . . . (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	13	0	0	0	0	0	0	28	0
Cairo . . . . . (A)	0	0	0	0	0	0	24	1	1	0	0	0	0	24	0
Fayoum . . . . . (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya . . . . . (A)	0	0	0	0	0	0	2	0	1	0	0	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	14	0	5	0	0	29	0
Aswan . . . . . (A)	0	0	0	0	0	0	0	0	2	0	4	0	0	27	0
Siwa	0	0	0	0	0	0	0	0	0	0	0	0	0	30	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	0	0	0	31	0
Kharga	0	0	0	0	0	0	0	0	0	0	2	0	0	30	0
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	5	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

JULY — 1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing Within 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	3	8	0	1—10	73	106	21	28	10	1	3	0	3	23	121	154	543
				11—27	13	63	1	0	0	0	0	0	1	1	26	85	190
				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**	**169**	**22**	**28**	**10**	**1**	**3**	**0**	**4**	**24**	**147**	**239**	**733**
Mersa Matruh. . (A)	13	0	0	1—10	16	10	3	3	2	5	6	17	85	101	82	120	450
				11—27	5	8	1	2	0	0	0	0	0	1	94	170	281
				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**	**18**	**4**	**5**	**2**	**5**	**6**	**17**	**85**	**102**	**176**	**290**	**731**
Alexandria . . . (A)	7	2	0	1—10	55	16	2	6	1	8	7	5	4	10	123	309	546
				11—27	13	4	0	0	0	0	0	0	0	1	47	124	189
				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	**68**	**20**	**2**	**6**	**1**	**8**	**7**	**5**	**4**	**11**	**170**	**433**	**735**
Tanta . . . . . (A)	26	0	0	1—10	143	35	8	1	2	1	2	16	53	60	159	139	619
				11—27	43	1	0	0	0	0	0	0	0	0	27	28	99
				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	**186**	**36**	**8**	**1**	**2**	**1**	**2**	**16**	**53**	**60**	**186**	**167**	**718**
Cairo . . . . . (A)	48	0	1	1—10	93	47	12	4	2	0	0	1	15	96	121	210	601
				11—27	18	1	0	1	0	0	0	0	0	7	25	42	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	**111**	**48**	**12**	**5**	**2**	**0**	**0**	**1**	**15**	**103**	**146**	**252**	**695**
Fayoum	6	2	0	1—10	257	377	6	1	4	0	0	1	3	5	17	65	736
				11—27	0	0	0	0	0	0	0	0	0	0	0	0	0
				28—54	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	**257**	**377**	**6**	**1**	**4**	**0**	**0**	**1**	**3**	**5**	**17**	**65**	**736**
Minya . . . . . (A)	3	0	1	1—10	351	78	5	0	0	0	1	2	0	2	2	59	500
				11—27	205	30	0	0	0	0	0	0	0	0	0	5	240
				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	**556**	**108**	**5**	**0**	**0**	**0**	**1**	**2**	**0**	**2**	**2**	**64**	**740**
Asyout . . . . (A)	0	0	7	1—10	158	49	2	0	1	1	0	0	3	8	37	159	418
				11—27	213	19	0	0	0	0	0	0	0	0	4	83	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	**371**	**68**	**2**	**0**	**1**	**1**	**0**	**0**	**3**	**8**	**41**	**242**	**737**

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

JULY — 1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing within 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	158	0	0	1—10	86	36	7	3	3	6	39	39	37	63	145	108	572
				11—27	0	0	0	0	0	0	0	0	0	0	2	12	14
				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**	**36**	**7**	**3**	**3**	**6**	**39**	**39**	**37**	**63**	**147**	**120**	**586**
Aswan (A)	13	0	4	1—10	111	38	0	7	7	23	20	12	9	37	94	109	527
				11—27	52	4	0	0	0	2	1	0	0	5	59	77	200
				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**	**42**	**0**	**7**	**7**	**25**	**21**	**12**	**9**	**42**	**153**	**246**	**727**
Siwa (A)	19	0	1	1—10	58	175	60	54	20	13	1	6	5	14	57	193	656
				11—27	4	20	5	0	1	0	0	0	0	1	9	28	68
				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**	**195**	**65**	**54**	**21**	**13**	**1**	**6**	**5**	**15**	**66**	**221**	**724**
Dakhla	1	2	2	1—10	133	34	5	4	1	3	9	29	43	56	110	268	695
				11—27	20	3	0	0	0	0	0	0	0	0	0	21	44
				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	**153**	**37**	**5**	**4**	**1**	**3**	**9**	**29**	**43**	**56**	**110**	**289**	**739**
Kahrga	6	3	0	1—10	418	28	13	7	1	2	0	2	1	15	43	85	615
				11—27	101	2	0	0	0	0	0	0	0	0	1	16	120
				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	**519**	**30**	**13**	**7**	**1**	**2**	**0**	**2**	**1**	**15**	**44**	**101**	**735**
Hurghada	9	4	0	1—10	23	65	8	6	11	9	0	0	2	9	101	86	320
				11—27	136	45	0	0	0	0	0	0	0	0	57	173	411
				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	**159**	**110**	**8**	**6**	**11**	**9**	**0**	**0**	**2**	**9**	**158**	**259**	**731**
Quseir	5	2	0	1—10	156	66	18	12	5	26	16	7	20	55	135	128	644
				11—27	43	1	0	0	0	0	0	0	0	0	1	48	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	**199**	**67**	**18**	**12**	**5**	**26**	**16**	**7**	**20**	**55**	**136**	**176**	**737**

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHLY MEAN AND MONTHLY ABSOLUTE HIGHEST AND LOWEST VALUES OF ALTITUDE, AIR TEMPERATURE AND 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
Helwan 0000 U.T.	Surface . . .	31	* 993m.b.	* 996m.b.	* 990m.b.	31	22.9	25.4	21.4	31	18.2
	1000 . . .	30	092	106	058	—	—	—	—	—	—
	850 . . .	30	1490	1518	1466	30	18.8	23.5	15.4	30	4.4
	700 . . .	30	3133	3171	3104	30	10.8	13.6	7.4	30	— 9.1
	600 . . .	30	4401	4452	4360	30	4.2	8.2	0.4	30	—14.9
	500 . . .	30	5868	5928	5816	30	— 3.6	— 0.7	— 6.7	30	—21.7
	400 . . .	30	7602	7674	7540	30	—12.8	— 9.8	—18.4	30	—30.0
	300 . . .	30	9738	9825	9639	30	—26.6	—23.4	—30.5	30	—39.9
	250 . . .	30	11029	11121	10922	30	—36.6	—33.0	—39.2	30	—50.2
	200 . . .	28	12545	12659	12432	28	—47.0	—43.9	—48.8	28	—58.3
	150 . . .	27	14358	14539	13803	27	—58.7	—55.9	—61.0	20	—67.8
	100 . . .	22	16883	17106	16712	22	—71.1	—68.0	—78.4	—	—
	70 . . .	11	19022	19151	18929	11	—68.7	—67.4	—72.3	—	—
	60 . . .	9	20001	20200	19920	9	—65.1	—62.2	—66.6	—	—
	50 . . .	9	21071	21191	21014	9	—61.4	—56.8	—63.2	—	—
	40 . . .	9	22553	22680	22500	9	—57.9	—56.6	—59.7	—	—
	30 . . .	9	24298	24419	24218	9	—54.6	—52.7	—57.3	—	—
	20 . . .	3	26878	26918	26841	3	—51.4	—49.5	—52.7	—	—
	10 . . .	1	31526	—	—	1	—44.6	—	—	—	—

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

* = pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

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

JULY—1976

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	31	*1009mb.	*1011mb.	*1006mb.	31	27.9	31.0	26.4	31	18.8
	1000	31	111	126	081	31	26.3	30.2	24.4	30	17.7
	850	31	1520	1544	1479	31	18.0	24.5	14.4	30	00.4
	700	31	3151	3211	3117	31	09.7	14.0	04.7	29	—13.6
	600	30	4423	4481	4381	30	02.9	05.4	00.2	29	—16.6
	500	30	5876	5945	5814	30	— 5.6	— 2.7	— 8.0	29	—24.7
	400	30	7570	7670	7522	30	—16.4	—13.7	—19.3	28	—33.8
	300	30	9705	9809	9630	30	—29.1	—26.3	—31.0	28	—44.9
	250	30	10986	11085	10910	30	—38.2	—35.4	—41.2	28	—52.2
	200	30	12287	12578	12410	30	—48.8	—44.8	—51.3	28	—61.3
	150	39	14327	14411	14241	30	—60.9	—58.4	—64.4	8	—69.4
	100	29	16785	16938	16683	29	—70.9	—54.1	—75.7	—	—
	70	17	18922	19223	18750	17	—65.5	—63.3	—74.0	—	—
	60	7	19970	20210	19840	7	—60.1	—56.6	—64.2	—	—
	50	7	21085	21361	20938	7	—55.9	—52.8	—59.0	—	—
	40	4	22195	22630	22300	4	—49.5	—45.2	—52.3	—	—
	30	3	24351	24426	24213	3	—48.0	—45.9	—51.1	—	—
	20	2	27021	27151	26891	2	—44.0	—42.0	—46.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan (A) 1200 U.T.	Surface	31	*993mb.	*997mb.	*989mb.	31	32.8	27.9	30.3	31	12.8
	1000	31	075	097	039	—	—	—	—	—	—
	850	31	1510	1548	1489	29	20.1	25.0	15.0	29	5.1
	700	31	3161	3213	3111	31	12.5	159.	8.4	31	—12.6
	600	31	4439	4492	4377	31	5.0	10.0	— 2.2	31	—19.7
	500	30	5911	5971	5840	29	— 2.0	— 0.3	— 6.1	29	—24.9
	400	30	7559	7743	7572	30	—10.5	— 7.0	—15.7	30	—32.0
	300	30	9818	9927	9701	30	—24.6	—20.8	—27.4	30	—42.2
	250	30	11122	11245	10994	30	—33.5	—29.6	—35.8	30	—50.1
	200	30	12795	12826	12517	29	—43.5	40.4	—45.9	28	—57.9
	150	28	14537	14696	14423	28	—54.6	—51.3	—57.5	28	—67.0
	100	26	17071	17243	16948	26	—65.1	—62.3	—68.9	—	—
	70	19	19244	19429	19114	19	—63.3	—60.0	—67.7	—	—
	60	13	20216	20330	20100	13	—57.1	—51.5	—60.4	—	—
	50	13	21316	21475	21220	13	—50.3	—37.9	—53.9	—	—
	40	8	22919	23160	22770	8	—45.3	—33.4	—48.3	—	—
	30	7	23761	24965	24592	7	—40.5	—35.0	—43.4	—	—
	20	3	24671	27665	27376	3	—35.5	—34.1	—36.4	—	—
	10	1	32263	—	—	1	—28.4	—		—	—
Aswan (A) 1200 U.T.	Surface	30	*985mb.	*987mb.	*982mb.	30	39.4	42.6	36.6	30	07.5
	1000	30	055	075	025	—	—	—	—	—	—
	850	30	1515	1533	1489	30	25.2	31.0	20.7	30	—02.7
	700	30	3171	3224	3136	30	12.0	16.7	09.4	30	—12.8
	600	30	4451	4518	4411	30	04.9	07.9	01.8	29	—20.2
	500	30	5920	5954	5875	30	—02.2	—00.7	—06.4	30	—25.7
	400	29	7567	7768	7619	29	—11.7	—07.2	—14.2	29	—32.9
	300	29	9808	9951	9734	29	—26.9	—22.0	—29.2	28	—45.9
	250	28	11097	11267	11016	28	—36.9	—31.8	—39.2	27	—52.1
	200	27	12605	12812	12513	27	—48.6	—42.8	—50.2	26	—63.5
	150	26	14434	14507	14342	26	—62.1	—59.0	—64.0	1	—71.2
	100	24	16861	16957	16761	24	—75.1	—71.4	—80.1	—	—
	70	20	18937	19082	18821	20	—71.6	—62.6	—83.3	—	—
	60	14	19923	20070	19810	14	—65.0	—60.0	—72.3	—	—
	50	14	21002	21166	20838	14	—59.4	—56.3	—67.5	—	—
	40	8	22540	22700	22450	8	—55.0	—52.8	—58.3	—	—
	30	7	24320	24470	24218	7	—49.2	—47.6	—50.3	—	—
	20	3	27015	27183	26908	3	—41.1	—37.7	—44.9	—	—
	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.

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

JULY— 1976

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 .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Helwan . .	5192 (30)	545 (30)	—18.7 (30)	5750	510	—19.7	4440	597	—15.9	17056 (11)	098 (11)	—71.6 (11)	18100	084	—70.5	16140	113	—69.5	13210	—	155	138
Aswan . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	(N)	(N)	(N)							(N)	(N)	(N)										
M. Matruh. .	4929 (30)	566 (30)	—19.3 (24)	5430	532	—12.8	4450	595	—29.1	16099 (14)	113 (14)	—70.2 (14)	17070	097	—73.0	14100	156	—60.0	10425	269	240	110
Helwan . . .	5576 (30)	523 (30)	—23.6 (30)	6630	463	—23.5	4980	560	—21.5	16860 (16)	103 (16)	—65.9 (16)	17760	088	—69.5	14700	126	—60.0	12940	193	220	120
Aswan . . .	5495 (30)	528 (30)	—23.8 (30)	6380	471	—31.1	4960	565	—24.3	16680 (16)	163 (16)	—74.9 (16)	17610	089	—78.1	15620	122	—73.0	15750	—	140	63

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) JULY 1976

Time	Pressure Surface (Millibar.)	Wind within 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			
1200 U.T.	Surface	5	12	3	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	16	17	15	0	31	14
	1000	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	18	12	19	14	16	0	30	18
	850	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	08	4	18	8	18	10	16	7	13	0	30	16
	700	1	25	0	—	0	—	0	—	0	—	0	—	0	—	1	14	3	21	7	27	15	15	2	21	0	29	20
	600	2	22	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	21	8	25	11	19	3	14	0	29	21
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	20	3	26	15	24	5	21	2	32	0	28	24
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	30	12	31	10	32	1	32	0	—	0	27	31
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	35	17	53	4	44	0	—	0	—	0	27	48
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	46	13	49	3	56	0	—	0	—	0	25	49
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	11	54	10	54	1	42	0	—	0	—	0	22	52
	150	0	—	0	—	0	—	0	—	0	—	0	—	3	32	12	50	5	46	0	—	0	—	0	—	0	20	46
	100	0	—	0	—	0	—	0	—	0	—	1	23	2	24	6	34	2	50	0	—	0	—	0	—	0	11	34
	70	0	—	0	—	0	—	0	—	1	20	1	37	1	21	0	—	0	—	0	—	0	—	0	—	0	3	26
	60	0	—	0	—	0	—	0	—	3	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	24
	50	0	—	0	—	0	—	2	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	18
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N : The number of cases the wind has been observed within the range of direction during the month:

T.N. : The total 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**

HELWAN (A) — JULY 1976

Time	Pressure Surface (Millibar)	Wind within ranges of direction (000—240°)																								Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar 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	14	08	7	09	1	04	2	05	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	08	1	31	8
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	5	18	5	14	1	33	0	—	1	10	0	—	0	—	0	—	2	14	2	16	4	14	9	14	0	29	15
	700	3	09	1	11	2	10	0	—	0	—	0	—	1	09	0	—	0	—	5	13	5	12	12	15	0	29	14
	600	2	12	0	—	1	09	1	13	0	—	0	—	0	—	0	—	3	09	4	18	7	22	11	13	0	29	15
	500	3	11	0	—	0	—	0	—	0	—	0	—	1	12	2	11	4	14	8	22	6	20	5	22	0	29	18
	400	1	55	0	—	0	—	0	—	0	—	0	—	0	—	3	26	9	24	11	29	5	19	0	—	0	29	26
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	32	4	27	7	41	10	35	3	41	0	—	0	25	36
	250	0	—	0	—	0	—	0	—	0	—	0	—	1	21	6	28	10	47	5	46	2	71	0	—	0	24	43
	200	0	—	0	—	0	—	0	—	0	—	0	—	2	20	7	36	4	48	2	84	1	37	0	—	0	16	43
	150	0	—	0	—	0	—	0	—	0	—	0	—	2	46	3	55	3	59	0	—	0	—	0	—	0	8	54
	100	0	—	0	—	0	—	0	—	0	—	0	—	1	40	1	57	0	—	0	—	0	—	0	—	0	2	48
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	7	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	5	2	8	4	10	17	10	0	31	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	10	10	3	16	1	12	1	6	0	—	0	—	0	—	1	3	0	—	1	9	8	13	6	15	0	31	12
	700	3	15	1	12	2	8	0	—	0	—	1	13	0	—	1	8	4	12	7	16	9	16	3	18	0	31	15
	600	3	13	2	10	0	—	0	—	0	—	1	3	0	—	1	11	6	16	6	15	11	14	1	36	0	31	15
	500	1	8	1	7	0	—	0	—	0	—	1	29	0	—	3	8	5	16	9	17	7	21	3	24	0	30	17
	400	0	—	0	—	0	—	0	—	0	—	1	20	2	18	4	12	7	27	10	32	4	24	1	22	0	29	25
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	35	6	22	8	38	8	36	1	32	1	22	0	25	33
	250	0	—	0	—	0	—	0	—	0	—	0	—	1	37	7	32	6	46	6	36	0	—	0	—	0	20	35
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	33	5	51	3	36	0	—	2	22	0	19	39
	150	0	—	0	—	0	—	0	—	0	—	0	—	2	45	6	53	4	36	2	28	0	—	0	—	0	14	43
	100	0	—	0	—	0	—	0	—	0	—	2	40	3	35	0	—	0	—	0	—	0	—	0	—	0	5	37
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

T.N.=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 1200 U.T. JULY 1976

Time	Pressure Surface (Millibar.)	Wind within 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			
1200 U.T.	Surface	7	09	0	—	0	—	0	—	1	07	4	07	2	09	1	06	0	—	3	17	8	12	4	11	0	39	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	2	11	1	03	0	—	0	—	0	—	1	01	2	—	0	—	3	10	4	14	9	10	8	15	0	30	11
	700	0	—	0	—	1	05	0	—	0	—	0	—	3	05	3	21	6	15	6	14	6	14	5	11	0	30	14
	600	0	—	2	06	2	14	1	05	0	—	1	08	2	03	3	14	6	19	8	09	3	03	2	10	0	30	12
	500	2	14	3	10	6	12	2	12	1	03	0	—	2	08	3	09	0	—	2	06	8	09	1	11	0	30	10
	400	2	04	4	11	7	11	6	13	1	07	1	09	1	12	0	—	3	06	1	12	2	08	1	10	0	29	10
	300	1	07	2	09	4	16	5	17	8	14	3	12	4	19	1	07	0	—	0	—	0	—	1	13	0	29	14
	250	0	—	1	04	5	16	3	21	7	20	5	18	2	18	0	—	1	04	0	—	0	—	1	13	0	25	17
	200	1	05	0	—	2	12	3	14	13	22	5	18	1	18	0	—	0	—	0	—	0	—	0	—	0	25	19
	150	0	—	0	—	0	—	2	21	15	31	7	24	0	22	0	—	0	—	0	—	0	—	0	—	0	24	29
	100	0	—	0	—	0	—	4	36	17	41	1	26	0	—	0	—	0	—	0	—	0	—	0	—	0	22	39
	70	0	—	0	—	0	—	8	39	4	44	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	12	41
	60	0	—	0	—	0	—	0	—	8	45	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	45
	50	0	—	0	—	0	—	4	35	4	33	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	34
	40	0	—	0	—	0	—	2	30	3	45	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	39
	30	0	—	0	—	0	—	3	37	1	43	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	38
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

T.N.=The total Number of cases the wind has been observed for all directions drin2he year.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — JULY 1976

The mean daily air temperature and relative humidity were nearly the same as normal.

Mild summer weather prevailed the whole month apart from three short warm spells on the 8*th*, 23*rd* & 29*th*. The second spell yielded the highest maximum air temperature for the month (31.8°C).

The mean daily actual sunshine duration was nearly the same as normal. The mean daily wind speed at 1.5 met. height was slightly lower than the corresponding value of July 1975.

The highest maximum soil temperatures were lower than the corresponding values of July 1975 at all depths with departures between 2.8°C (at 2 cm.) and 0.2°C (at 10 cm.). The lowest minimum soil temperatutes were also lower than July 1975 at all depths with departures between 1.5°C (at 5 cm.) and 0.5°C (at 100 cm.).

TAHRIR — JULY 1976

The mean daily air temperature was below normal and the mean daily relative humidity was nearly the same as normal.

Mild summer weather prevailed the whole month, apart from three short and light heat waves in the periods : (8*th* & 9*th*), (23*rd* — 25*th*) and (29*th* & 30*th*). The second wave yielded the highest maximum air temperature (36.9°C) on the 25*th*.

The mean daily actual sunshine duration, windspeed at 1.5 met. height and pan evaporation were lower than normal by 0.2 hour, 0.3 met./sec. and 1.27 mm. respectively.

The highest maximum soil temperatures were lower than average at all dpeths with departures between 2.1°C (at 2 cm.) & 0.4°C (at 50 cm.). The lowest minimum soil temperatures were lower than average at all depths except at 20 cm. whrer it was higher than average : the departures varied between 0.2° & 1.0°C.

BAHTIM — JULY 1976

The mean daily air temperature and relative humidity were nearly the same as average,

The prevailing weather during the month was generally of the mild summer type. The highest maximum ait temperature was 35.5°C reported on the 9*th*.

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaporation were lower than average by 0.1 hour, 0.6 met./sec. and 1.21 mm. respectively.

The highest maximum soil temperatures were higher than average at depths between 2 & 20 cm. with departures between 2.7°C (at 5 cm.) & 0.4°C (at both 10 & 20 cm.). The lowest minimum soil temperatures were also higher than average at depths between 2 & 20 cm. with departures between 2.0°C (at 2 cm.) and 0.2°C (at 20 cm.).

KHARGA — JULY 1976

The mean daily air temperature was slightly above average, and the mean daily relative humidity was nearly the same as average.

Weather was characterized by three short heat waves on the 10th, 25th & 30th. The last wave yielded the highest maximum air temperature (43.0.°C). In the rest of the month mild summer weather was experienced.

The mean daily actual sunshine duration was the same as normal. The mean daily wind speed at 1.5 met. height and pan evaporation were lower then normal by 1.0 met./sec and 2.0 mm. respectively.

The highest maximum soil temperatures were lower than average at all depths except those at 10 & 20 cm. which were both higher than average by 1.1°C ; the departures varied between 1.0° & 0.2°C. The lowest minimum soil temperatures were higher than average at 2,5,20 cm. with departures between 1.4°C (at 2 cm) & O.4°C (at 20 cm.) and lower than average at 10,50.100 cm. with slight departures between 0.1° & 0.2°C.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND
JULY — 1976

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 . . .	28.1	20.2	24.6	22.4	23.3	24.0	24.0	24.0	24.0	24.0	22.5	10.8	0.5	0.0	0.0	0.0
Tahrir	34.2	18.8	25.7	22.0	28.7	24.0	24.0	24.0	24.0	24.0	21.3	12.1	6.0	0.0	0.0	0.0
Bahtim	32.7	18.2	25.4	21.5	28.5	24.0	24.0	24.0	24.0	24.0	20.3	11.9	6.1	0.0	0.0	0.0
Kharga	38.8	25.4	32.9	30.2	35.2	24.0	24.0	24.0	24.0	24.0	24.0	23.3	16.8	8.5	0.6	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
JULY — 1976

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.	31.8	23	27.2	4	23.4	30	17.0	6	16.0	6	—	—
Tahrir	36.9	25	32.0	19	21.3	17	15.9	23	13.6	23	11.7	23
Bahtim	35.5	9	30.8	28	21.0	21	15.1	8	12.4	8	11.1	8
Kharga	43.0	30	37.0	5, 20	29.6	26	21.8	10	18.4	9	—	—

Table C 3.—(SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY & VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL
JULY — 1976

STATION	Solar+Sky Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity %				Vapour Pressure (mms)						Evaporation (mm)		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 . .	—	377.0	433.4	87	77	65	43	25	17.8	18.2	22.7	29	13.0	9	5.6	—	0.0	—	—
Tahrir	—	377.3	430.9	88	68	43	28	9	16.4	15.7	21.1	30	11.0	14	5.8	10.20	0.0	—	—
Bahtim	—	360.6	429.5	84	68	43	31	14	15.9	15.4	20.4	25	11.2	8	6.6	8.82	0.0	—	—
Kharga	—	383.2	419.0	91	24	18	9	10	8.9	9.1	15.2	31	5.8	23	17.3	18.94	0.0	—	—

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

JULY — 1976

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	42.2	40.3	35.8	31.2	28.6	26.6	24.2	—	—	—	—	—	—	—	—	—
	L	25.1	24.3	23.7	25.0	26.0	24.8	22.4	—	—	—	—	—	—	—	—	—
Tahrir. . .	H	52.5	46.9	41.8	36.4	32.7	30.4	28.2	26.7	35.7	32.6	31.2	29.2	28.9	27.8	26.7	—
	L	27.3	26.5	27.2	30.4	30.8	29.0	26.6	25.3	24.5	24.7	24.6	25.2	26.2	26.5	25.6	—
Bahtim . .	H	56.2	48.7	40.2	34.9	30.6	27.8	23.7	22.0	39.5	34.4	32.6	29.0	27.2	25.6	23.1	—
	L	30.9	28.8	29.3	31.3	27.2	24.8	22.9	21.4	23.3	22.3	22.7	24.2	25.1	24.3	22.2	—
Kharga . .	H	56.8	50.6	45.0	39.4	34.5	32.8	30.2	28.8	—	—	—	—	—	—	—	—
	L	23.6	26.4	29.7	33.2	33.2	31.6	29.2	28.2	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

JULY — 1976

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 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	3.6	2.3	4.8	31	29	8	0	0	0	0	30	19
Tahrir.	2.2	1.4	3.0	31	11	2	0	0	0	0	25	3,19
Bahtim..	1.7	1.1	2.4	17	1	0	0	0	0	0	24	5
Kharga.	3.0	2.0	4.0	31	25	2	0	0	0	0	32	18

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In fulfilment of its duties, the Egyptian Meteorological Authority issues several 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 station.

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 19 NUMBER 8

AUGUST, 1976

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

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

GENERAL SUMMARY OF WEATHER CONDITIONS

AUGUST 1976

Mild summer weather in north, hot in south.

PRESSURE DISTRIBUTION

Pressure distribution was mainly influenced by the monsoon low pressure over the Arabian gulf & Arabia, and the weak high pressure over central Mediterranean.

The mean barometric pressure over Egypt was generally above normal.

SURFACE WIND

The prevailing winds were generally light to moderate N ly & NW ly, freshened during few days in scattered places.

TEMPERATURE

This month was intervened by three heat waves : light &short in Lower Egypt & Cairo, and of moderate intensity & duration in Upper Egypt. Apart from these heat waves, mild summer weather was experienced with subnormal maximum temperatures.

The highest and lowest maximum air temperatures were respectively 44, O°C at Qena on the 23 rd and 26.3°C at Damietta on the 8 th.

Minimum air temperatures showed irregular slight departures below and above normal.

The highest and lowest minimum air temperatures were respectively. 28.4°C at Ras Benas on the 24 th and 15,O°C at shebin El Kom on the 24 th.

PRECIPITATION

This month was rainless as usual.

OTHER WEATHER PHENOMENA

Early morning mist developed during several days over scattered places in Delta & Cairo.

Light rising sand was reported during some days on western coast and in south.

Cairo, April 1979

Chairman (M.S.ELDIN HARB)

Board of Directors.

SURFACE DATA

TableA 1.—MEAN VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE, RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION

AUGUST 1976

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	1012.3	+1.9	30.6	—0.5	21.8	0.0	26.2	25.5	—0.8	20.6	—1.1	63	—3	—	—	—	9.0
Mersa Matruh. (A)	1012.9	+2.7	27.9	—1.9	21.3	+0.3	24.6	24.6	—0.9	20.7	—1.1	72	0	354.0	411.5	89	7.5
Alexandria (A)	1011.5	+2.5	29.7	—0.9	22.7	—0.2	26.2	25.6	—1.0	21.4	—1.4	68	—3	343.5	410.9	84	4.6
Port Said. (A)	1009.2	+1.1	30.9	+0.1	22.3	—2.3	26.6	25.9	—1.4	22.1	—1.1	72	0	360.9	410.9	88	3.8
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1010.7	+2.1	31.3	—3.2	17.9	—1.2	24.6	23.9	—2.7	20.6	—1.4	75	+9	300.9	410.1	88	8.7
Cairo. (A)	1010.9	+2.3	32.7	—1.9	20.8	—1.0	26.8	26.0	—1.7	20.8	—0.9	64	+7	—	—	—	9.9
Fayoum.	—	—	35.7	—0.8	19.5	—2.0	27.6	27.2	—1.6	20.9	—0.5	58	+8	—	—	—	7.6
Minya. (A)	1010.0	+2.5	31.7	—1.7	19.1	—1.3	26.9	26.8	—1.4	20.2	—0.5	56	+6	367.4	406.4	90	12.7
Assyout. (A)	1009.4	+2.3	34.1	—2.7	20.0	—2.3	27.0	27.1	—2.9	18.0	—1.8	40	+4	—	—	—	18.2
Luxor. (A)	1006.8	+1.5	38.5	—2.4	22.3	—1.2	30.4	30.5	—2.2	20.0	—0.0	36	+10	—	—	—	10.5
Aswan. (A)	1006.5	+1.1	40.4	—0.9	24.5	—0.2	32.4	32.2	—1.3	18.1	—0.2	21	+5	372.1	400.5	93	21.4
Siwa	1012.2	+2.3	36.6	—1.1	21.0	+0.2	28.8	28.6	—1.1	19.5	—0.3	43	+7	366.9	407.9	90	14.5
Bahariya.	1010.5	+2.1	35.5	—1.4	20.3	—0.7	27.9	27.7	—2.1	19.0	—0.9	44	+9	—	—	—	11.6
Farafra.	1011.8	+2.3	36.2	—1.2	20.8	—0.3	28.5	28.4	—1.3	17.7	—0.4	33	+6	—	—	—	16.3
Dakhla.	1010.2	+2.4	36.0	—2.5	21.4	—1.2	28.7	28.9	—1.8	17.8	—0.6	30	+7	—	—	—	21.3
Kharga.	1008.5	+2.0	37.0	—2.3	24.4	+1.6	30.7	31.0	—0.7	18.2	—0.3	29	+3	370.2	402.6	92	17.0
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada.	1060.5	+1.8	32.1	—1.2	24.9	—0.2	28.5	28.8	—2.2	21.0	—1.0	47	0	375.1	404.8	93	14.2
Quseir.	1005.4	0.0	31.6	—2.0	25.5	—1.3	28.6	28.7	—1.4	22.2	—0.1	55	+7	—	—	—	10.0

Table A 2 — MAXIMUM AND MINIMUM AIR TEMPERATURE

AUGUST — 1976

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	37.4	18	26.7	23	31	17	1	0	0	20.1	—	23.6	25	20.3	23	0	0	0	0
Mersa Matruh (A)	30.1	20	26.7	23	31	1	0	0	0	20.5	—	23.0	7,10,30	18.2	24	0	0	0	0
Alexandria (A)	31.4	10	28.3	27,28	31	8	0	0	0	20.9	—	24.3	4,13	17.9	22	0	0	0	0
Port Said (A)	33.3	3	29.5	28,29	31	29	0	0	0	21.9	—	23.6	11	20.5	29	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	33.6	13	28.5	8	31	25	0	0	0	—	—	20.2	3,14	15.5	24	0	0	0	0
Cairo (A)	36.1	13	30.1	28	31	31	3	0	0	—	—	23.0	4	18.4	28	0	0	0	0
Fayoum	39.2	13	33.0	8	31	31	20	0	0	17.5	—	22.4	23	17.4	22	0	0	0	0
Minya (A)	38.0	26	32.4	8	31	31	13	0	0	17.7	—	21.3	13	16.8	22	0	0	0	0
Assyout (A)	38.3	25	31.2	9	31	31	9	0	0	19.0	—	21.8	23	17.8	29	0	0	0	0
Luxor (A)	43.0	23	35.2	9	31	31	31	7	0	17.9	—	24.8	5	20.6	21	0	0	0	0
Aswan (A)	43.2	25	36.4	9	31	31	31	21	0	—	—	26.5	24	21.9	29	0	0	0	0
Siwa	41.6	22	32.3	8	31	31	25	3	0	21.0	—	23.6	19	18.6	10	0	0	0	0
Bahariya	41.2	22	32.5	28	31	31	16	1	0	19.0	—	23.3	26	18.5	31	0	0	0	0
Farafra	42.8	22	32.6	31	31	31	19	1	0	19.1	—	23.3	19	18.0	31	0	0	0	0
Dakhla	40.5	26	32.2	30	31	31	19	3	0	21.3	—	24.8	20	18.2	31	0	0	0	0
Kharga	41.0	22	31.0	29	31	31	24	4	0	21.6	—	27.7	5	20.5	31	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	33.5	14,20,21	30.3	30	31	31	0	0	0	—	—	26.5	6	23.3	22	0	0	0	0
Quseir	33.4	14	30.1	29,30	31	31	0	0	0	23.3	—	27.3	14	23.3	17	0	0	0	0

TABLE A 3.—SKY COVER AND RAINFALL

AUGUST — 1976

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	1.9	1.1	1.4	0.7	1.8	0.0	0.0	0.0	—	—	—	—	—	—	—	—
Mersa Matruh (A)	1.1	2.9	1.7	1.4	1.5	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	1.9	2.8	3.5	2.9	2.8	0.0	—0.3	0.0	—	0	0	0	0	0	0	0
Port Said (A)	2.7	2.0	0.2	0.9	1.4	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.3	0.5	1.1	0.0	0.6	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Cairo (A)	3.2	3.2	0.4	0.3	1.6	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Fayoum	—	1.3	0.0	0.0	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.0	1.5	0.0	0.0	0.2	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.5	0.0	0.0	0.0	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.0	0.2	0.2	0.1	0.1	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.0	0.3	0.3	0.0	0.2	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Bahariya	0.0	0.7	0.0	0.0	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.0	0.1	0.0	—	0.0	0.0	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	0.0	0.1	0.0	0.0	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0

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

AUGUST — 1976

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											
Saffum	0	0	0	0	0	0	0	0	0	0	7	0	0	21	0
Mersa Matruh (A)	0	0	0	0	0	0	2	0	3	0	23	0	0	17	0
Alexandria (A)	0	0	0	0	0	0	1	0	0	0	0	0	0	9	0
Port Said (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—		—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	8	0	0	0	0	0	0	30	0
Cairo (A)	0	0	0	0	0	0	22	2	0	0	0	0	0	19	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0		—
Minya (A)	0	0	0	0	0	0	9	0	1	0	0	0	0	31	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	2	0	0	31	0
Luxor (A)	0	0	0	0	0	0	0	0	13	0	5	0	0	30	0
Aswan (A)	0	0	0	0	0	0	0	0	1	0	3	0	0	30	0
Siwa	0	0	0	0	0	0	0	0	0	0	2	0	0	31	0
Bahariya	0	0	0	0	0	0	0	0	0	0	2	0	0	31	0
Farafra	0	0	0	0	0	0	1	0	1	0	1	0	0		—
Dakhla	0	0	0	0	0	0	0	0	0	0	5	0	0	31	0
Kharga	0	0	0	0	0	0	0	0	0	0	7	0	0	31	0
Tor	—	—	—			—	—	—	—		—	—	—		—
Hurghada	0	0	0	0	0	0	0	0	0	0	13	0	0	31	0
Quseir	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 ND DIRECTION RECORDED WITHIN SPECIFIED RANGES

AUGUST — 1976

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	11	7	5	1—10	84	45	10	12	8	2	0	1	7	9	55	154	387
				11—27	16	87	15	1	0	0	0	0	0	1	31	183	334
				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	**100**	**132**	**25**	**13**	**8**	**2**	**0**	**1**	**7**	**10**	**86**	**337**	**721**
Mersa Matruh	3	0	0	1—10	23	12	1	7	4	10	2	3	10	67	29	41	209
				11—27	31	11	8	3	0	0	0	0	0	2	164	313	532
				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	**54**	**23**	**9**	**10**	**4**	**10**	**2**	**3**	**10**	**69**	**193**	**354**	**741**
Alexandria	1	0	0	1—10	51	29	5	0	1	1	4	1	3	4	16	118	233
				11—27	55	8	0	0	0	0	0	0	0	0	59	388	510
				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	**106**	**37**	**5**	**0**	**1**	**1**	**4**	**1**	**3**	**4**	**75**	**506**	**743**
Tanta	13	0	0	1—10	73	31	5	0	0	0	4	6	44	94	156	214	627
				11—27	27	3	0	0	0	0	0	0	0	0	0	74	104
				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	**100**	**34**	**5**	**0**	**0**	**0**	**4**	**6**	**44**	**94**	**156**	**288**	**731**
Cairo	42	0	0	1—10	64	21	4	3	2	0	0	2	18	119	205	162	600
				11—27	26	6	0	2	0	0	0	0	0	2	28	40	102
				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	**90**	**27**	**4**	**3**	**2**	**0**	**0**	**2**	**18**	**121**	**233**	**202**	**702**
Fayoum	1	1	0	1—10	411	256	16	6	1	1	0	4	0	1	4	37	737
				11—27	0	4	1	0	0	0	0	0	0	0	0	0	5
				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	**411**	**260**	**17**	**6**	**1**	**1**	**0**	**4**	**0**	**1**	**4**	**37**	**742**
Minya	14	0	0	1—10	368	36	0	0	0	1	5	1	0	1	7	34	453
				11—27	255	20	0	0	0	0	0	0	0	0	0	2	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	**623**	**56**	**0**	**0**	**0**	**1**	**5**	**1**	**0**	**1**	**7**	**36**	**730**
Assyout	0	0	0	1—10	69	13	3	3	2	3	1	4	2	2	15	91	208
				11—27	330	20	0	0	0	0	0	0	0	0	10	176	536
				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**	**33**	**3**	**3**	**2**	**3**	**1**	**4**	**2**	**2**	**25**	**267**	**744**

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

AUGUST — 1976

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												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	133	0	0	1—10	80	29	11	0	1	3	57	58	48	110	133	55	585
				11—27	11	0	0	0	0	0	0	0	0	0	0	14	26
				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	**91**	**29**	**11**	**0**	**1**	**3**	**57**	**58**	**48**	**110**	**134**	**69**	**611**
Aswan	0	0	0	1—10	162	38	2	0	4	9	5	5	5	27	123	158	538
				11—27	73	1	0	0	0	2	0	0	0	0	46	84	206
				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	**235**	**39**	**2**	**0**	**4**	**11**	**5**	**5**	**5**	**27**	**169**	**242**	**744**
Siwa	40	0	1	1—10	91	139	50	27	9	7	10	6	7	21	42	140	549
				11—27	24	66	5	2	0	0	0	1	1	0	8	47	154
				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	**115**	**205**	**55**	**29**	**9**	**7**	**10**	**7**	**8**	**21**	**50**	**187**	**703**
Dakhla	2	4	0	1—10	100	28	3	6	3	6	9	6	10	39	91	288	589
				11—47	58	26	0	0	0	0	0	0	0	0	1	64	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	**158**	**54**	**3**	**6**	**3**	**6**	**9**	**6**	**10**	**39**	**92**	**352**	**738**
Khurga	0	0	0	1—10	324	13	5	0	0	1	0	0	1	4	13	126	487
				11—27	215	1	0	0	0	0	0	0	0	0	0	41	257
				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	**539**	**14**	**5**	**0**	**0**	**1**	**0**	**0**	**1**	**4**	**13**	**167**	**744**
Hurghada	0	0	1	1—10	37	35	0	0	0	1	3	0	0	4	83	45	209
				11—27	163	15	0	0	0	0	0	0	0	0	50	306	534
				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**	**50**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**4**	**133**	**352**	**743**
Quseir	0	1	0	1—10	128	16	2	2	4	3	8	8	4	32	163	157	527
				11—27	97	0	0	0	0	0	0	0	0	0	6	113	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	**225**	**16**	**2**	**2**	**4**	**3**	**8**	**8**	**4**	**32**	**169**	**270**	**743**

UPPER AIR CLIMATOLOGICAL DATA

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

AUGUST—1976

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Helwan 0000 T.U.	Surface	31	995mb.*	997mb.*	992mb.*	31	22.0	25.0	20.3	31	18.1
	1000	30	092	112	068	—	—	—	—	—	—
	850	30	1492	1508	1478	30	18.0	22.5	14.0	30	02.6
	700	30	3139	3171	3115	30	11.8	15.4	08.3	30	−07.1
	600	30	4416	4454	4385	30	05.1	09.2	01.8	30	−13.2
	500	30	5882	5937	5835	30	−04.0	−00.1	−07.7	30	−21.4
	400	29	7608	7689	7554	28	−15.0	−12.0	−19.5	28	−30.7
	300	29	9728	9831	9630	28	−29.0	−25.8	−33.2	28	−42.9
	250	29	11010	11128	10890	29	−38.0	−35.0	−40.6	29	−49.9
	200	28	12517	12651	12375	28	−48.1	−45.0	−51.5	28	−58.0
	150	28	14370	14521	14200	28	−59.5	−56.6	−62.2	20	−67.6
	100	21	16856	16995	16754	21	−70.3	−66.6	−73.7	—	—
	70	11	18949	19108	18873	10	−68.2	−65.5	−70.4	—	—
	60	9	19932	20080	19870	9	−64.9	−63.1	−67.1	—	—
	50	9	21012	21160	20926	9	−61.5	−59.6	−63.1	—	—
	40	7	22487	22630	22420	7	−58.7	−56.1	−60.5	—	—
	30	7	24222	24368	24126	7	−55.5	−53.8	−59.1	—	—
	20	2	26788	26830	26746	2	−53.9	−50.7	−57.2	—	—
	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 B1 (*contd*).—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHER & LOWER VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

AUGUST — 1976

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	31	1010 mb	1013 mb	1008* mb	31	27.3	29.0	25.5	31	18.2
	1000	31	119	143	98	31	25.8	27.5	23.6	31	16.1
	850	31	1520	1551	1427	31	17.0	22.4	8.5	31	— 0.5
	700	31	3160	3193	3102	31	9.7	14.0	4.8	31	— 8.1
	600	31	4424	4473	4346	31	2.7	6.2	— 3.3	31	—15.6
	500	31	5878	59.6	5783	31	— 6.1	— 1.6	—11.6	31	—23.4
	400	31	7589	7688	7463	31	—17.7	—13.1	—28.6	31	—34.0
	300	29	9693	9818	9507	29	—30.9	—27.4	—39.0	29	—45.1
	250	29	10963	11100	10747	29	—39.8	—35.4	—43.9	29	—53.4
	200	29	12456	12605	12219	29	—50.4	—44.5	—55.3	29	—62.5
	150	28	14:92	14444	14047	28	—62.7	—56.1	—67.7	3	—71.5
	100	24	16730	16864	16432	24	—72.3	—60.3	—75.7	—	—
	70	15	18822	19178	18512	15	—66.7	—53.7	—73.9	—	—
	60	11	19841	20200	19500	11	—61.1	—48.9	—69.3	—	—
	50	11	20929	21392	20570	11	—56.6	—43.1	—63.3	—	—
	40	6	22453	22860	22080	6	—52.0	—41.4	—55.0	—	—
	30	3	24092	24268	23848	3	—49.4	—48.5	—50.9	—	—
	20	2	26900	26968	26831	2	—46.4	—45.2	—47.5	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	31	994 m.b.	996* m.b.	990m.b.	31	31.8	35.5	29.0	31	12.1
	1000	—	—	—	—	—	—	—	—	—	—
	850	31	1514	1532	1482	30	20.7	25.1	13.9	30	2.2
	700	30	3173	3210	3126	30	13.6	17.7	10.4	30	—11.3
	600	28	4452	4496	4411	28	6.8	11.0	2.9	28	—17.3
	500	28	5928	5995	5876	27	— 2.0	2.1	— 6.0	27	—24.5
	400	27	7669	7745	7611	27	—12.4	— 8.3	—16.5	27	—33.1
	300	27	9813	9914	9748	27	—26.4	—23.2	—28.9	27	—44.1
	250	27	11107	11226	11049	27	—35.1	—32.3	—37.4	27	—51.3
	200	27	12635	12721	12560	27	—44.7	—42.9	—47.0	27	—59.0
	150	24	14521	14681	14434	24	—53.9	—53.0	—60.6	23	—65.2
	100	24	17024	17180	16950	24	—65.0	—53.0	—73.8	—	—
	70	20	19216	19403	19072	20	—61.5	—56.3	—65.9	—	—
	60	12	20226	20380	20030	12	—56.7	—51.7	—61.0	—	—
	50	12	21364	21516	21146	12	—51.6	—45.4	—57.0	—	—
	40	9	22911	23070	22680	9	—47.0	—37.9	—55.2	—	—
	30	8	24781	24957	24486	8	—40.4	—31.8	—47.2	—	—
	20	5	27560	27744	27219	5	—33.4	—26.9	—40.9	—	—
	10	2	32682	32770	32594	2	—20.8	—18.0	—23.7	—	—
Aswan (A) 1200 U.T.	Surface	31	985* mb.	988* mb.	983* mb.	31	38.8	42.0	36.2	31	7.5
	1000	31	57	82	33	—	—	—	—	—	—
	850	31	1512	1539	1486	31	24.7	28.7	21.5	31	— 2.8
	700	31	3179	3227	3145	31	14.6	18.0	11.0	31	—12.4
	600	31	4457	4522	4404	31	5.2	9.7	1.0	31	—
	500	31	5923	5987	5884	31	— 3.4	— 1.4	— 7.1	31	—26.7
	400	31	7654	7700	7609	31	—14.3	—11.8	—16.9	31	—35.8
	300	31	9772	9831	9707	31	—29.3	—26.8	—32.9	31	—47.8
	250	31	11049	11111	10956	31	—39.2	—37.0	—43.0	31	—55.9
	200	31	12543	12613	12428	31	—50.4	—48.3	—53.6	31	—64.8
	150	30	14365	14447	14212	30	—63.3	—60.4	—66.0	—	—
	100	28	16774	16897	16620	28	—75.0	—69.9	—80.2	—	—
	70	21	18872	19035	18735	21	—68.2	—61.1	—77.2	—	—
	60	11	19867	19970	19700	11	—63.0	—57.7	—67.0	—	—
	50	11	20977	21175	20778	11	—56.0	—47.7	—59.6	—	—
	40	2	22475	22550	22400	2	—53.0	—52.3	—53.6	—	—
	30	1	24315	—	—	1	—48.7	—	—	—	—
	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.

Note : No upper air abservations were taken at Mersa Matroh and Asswan at 0000 U.T.

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

AUGUST 1976

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
0000G.T.	(N)	(N)	(N)							(N)	(N)	(N)										
Mersa Matruh(A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Helwan	5253 (30)	510 (30)	—17.6 (30)	5900	501	—18.1	4640	583	—29.1	16135 (12)	113 (12)	—69.6 (12)	17640	090	—72.8	15100	130	—65.8	14650	144	210	69
Aswan . . (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200G.T.																						
Mersa Matruh	N	(N)	(N)							(N)	(N)	(N)										
	4929 (31)	566 (31)	—15.4 (31)	5650	550	—26.0	3950	634	—12.6	16122 (14)	112 (14)	—71.7 (14)	17730	090	—74.5	13800	164	—56.9	12380	204	230	80
Helwan . . .	5592 (26)	523 (26)	—22.8 (26)	6430	473	—20.8	5000	562	—19.7	16338 (21)	114 (21)	—64.2 (20)	18100	085	—68.7	14487	150	—60.0	2940	—	235	65
Aswan	5487 (31)	542 (31)	—23.6 (31)	5770	512	—21.4	4660	584	—26.9	16432 (19)	107 (19)	—73.3 (19)	17480	088	—75.9	15120	129	—71.3	15300	130	095	63

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

Tale B 3. NUMBER OF OCURRENCES OF WIND DIRECTION WTHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

MERSA MATRUH (A) — AUGUST 1976

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			
1200 T.U.	Surface	2	10	0	—	2	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	11	16	15	16	0	30	15
	1000	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	16	22	11	20	0	28	21
	850	2	26	0	—	0	—	0	—	0	—	0	—	0	—	1	17	1	22	4	24	11	17	10	20	0	29	26
	700	2	30	0	—	1	4	0	—	0	—	0	—	0	—	0	—	2	30	5	14	10	30	8	18	0	28	23
	600	1	18	1	16	0	—	0	—	0	—	1	4	0	—	1	15	5	13	4	38	9	25	6	18	0	28	21
	500	0	—	1	8	0	—	0	—	0	—	0	—	0	—	3	19	6	21	7	27	8	20	2	22	0	27	22
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	27	11	27	6	26	2	27	1	40	0	25	27
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	12	36	7	35	3	28	1	21	0	—	0	23	34
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	11	38	9	37	3	33	0	—	0	—	0	23	37
	200	0	—	0	—	0	—	0	—	0	—	0	—	4	16	9	40	7	44	1	22	0	—	0	—	0	21	36
	150	0	—	0	—	0	—	0	—	0	—	2	10	3	25	9	36	3	40	0	—	0	—	0	—	0	17	32
	100	0	—	0	—	0	—	1	25	1	20	2	14	6	28	4	26	0	—	0	—	0	—	0	—	0	14	25
	70	0	—	0	—	0	—	1	21	4	24	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	6	22
	60	0	—	0	—	1	21	3	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	22
	50	0	—	0	—	0	—	3	21	1	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	22
	40	0	—	0	—	0	—	1	33	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	33
	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 B3 NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES.
HELWAN AUGUST 1976

Station	Pressure Surface (Millibars)	Wind between ranges of direction (000—360°)																								Number of Calm winds	Total number of observations (TN)	Mean scalar wind speedknots
		345 / 014		15 / 044		45 / 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			
0300 T.U.	Surface	16	07	3	09	0	—	1	04	0	—	0	—	0	—	0	—	0	—	1	05	1	07	9	05	0	31	6
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	15	15	1	34	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	3	22	10	12	0	30	18
	700	8	14	1	04	1	05	0	—	0	—	0	—	0	—	3	09	1	14	4	12	7	13	5	23	0	30	14
	600	3	08	0	—	0	—	0	—	0	—	0	—	1	16	1	32	5	09	7	15	8	10	5	10	0	30	12
	500	1	15	0	—	0	—	0	—	0	—	1	14	1	29	5	16	4	15	9	11	6	13	3	14	0	30	11
	400	1	07	0	—	0	—	6	—	0	—	1	07	0	—	10	18	6	27	6	22	4	13	1	18	0	29	19
	300	0	—	0	—	0	—	0	—	0	—	0	—	2	21	13	20	11	22	2	22	1	13	0	—	0	29	20
	250	0	—	0	—	0	—	0	—	1	04	1	15	3	15	9	21	8	27	4	21	2	6	0	—	0	28	20
	200	0	—	0	—	1	07	1	03	0	—	1	25	1	04	15	25	5	21	2	39	0	—	1	11	0	27	22
	150	0	—	0	—	0	—	3	08	0	—	2	14	5	25	7	32	5	34	0	—	0	—	0	—	0	22	26
	100	0	—	0	—	1	20	1	13	0	—	3	25	1	26	1	37	2	42	0	—	0	—	0	—	0	9	28
	70	1	12	0	—	0	—	3	21	1	34	1	40	0	—	0	—	0	—	0	—	0	—	0	—	0	6	25
	60	0	—	0	—	1	21	2	16	3	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	6	22
	50	0	—	0	—	0	—	6	28	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	6	29
	40	0	—	0	—	1	32	3	35	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	34
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	6	8	1	8	0	—	0	—	0	—	0	—	6	—	0	—	0	—	1	5	2	10	21	9	0	31	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	12	12	4	8	0	—	1	5	0	—	0	—	0	—	1	3	1	13	0	—	3	15	8	10	0	30	11
	700	5	15	2	6	0	—	0	—	0	—	0	—	0	—	3	17	1	22	5	7	7	14	6	14	0	29	13
	600	1	7	1	14	0	—	0	—	0	—	0	—	0	—	3	17	5	18	4	9	10	15	4	19	0	28	15
	500	3	14	0	—	0	—	0	—	0	—	0	—	1	21	4	11	6	15	6	8	4	14	3	17	0	27	13
	400	0	—	0	—	1	14	0	—	0	—	0	—	0	—	9	18	7	16	8	13	2	20	0	—	0	27	16
	300	0	—	0	—	0	—	0	—	0	—	1	9	1	2	10	18	12	26	2	26	0	—	1	5	0	27	21
	205	0	—	2	9	0	—	0	—	2	6	0	—	1	7	13	23	9	26	0	—	0	—	0	—	0	27	21
	200	0	—	0	—	1	3	0	—	0	—	0	—	3	15	8	23	9	34	1	10	0	—	0	—	0	22	25
	150	0	—	0	—	0	—	0	—	0	—	2	20	5	24	5	20	6	24	0	—	0	—	0	—	0	18	23
	100	0	—	0	—	1	26	0	—	2	22	9	22	4	21	3	25	0	—	0	—	0	—	0	—	0	14	22
	70	0	—	0	—	0	—	0	—	5	25	1	26	0	—	0	—	0	—	0	—	0	—	0	—	0	6	25
	60	0	—	0	—	0	—	2	26	3	20	1	14	0	—	0	—	0	—	0	—	0	—	0	—	0	6	21
	50	0	—	0	—	0	—	3	21	2	28	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	21
	40	0	—	0	—	0	—	1	15	2	31	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	26
	30	0	—	0	—	0	—	1	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	19
	20	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	10
	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 obeserved 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 SELECTEDPRESSURE SURFACES

ASWAN 1200 U.T. AUGUST 1976

Time	Pressure Surface (Millibar)	Wind between ranges of direction (000—360°)																								Number of calm winds	Total number of observations (TN)	Mean acalar 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			
Aswan 1200 U.T.	Surface	5	11	1	10	1	9	0	—	0	—	0	—	1	10	0	—	0	—	5	9	8	10	9	12	1	31	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	11	1	10	1	9	0	—	0	—	0	—	0	—	1	16	0	—	7	13	11	11	7	12	0	31	12
	700	0	—	0	—	0	—	1	25	0	—	0	—	0	—	4	22	16	18	6	17	3	12	0	—	0	30	18
	600	1	12	1	13	0	—	0	—	0	—	0	—	1	2	11	18	9	19	3	13	2	7	2	6	0	30	15
	500	3	4	3	8	1	8	8	9	3	12	2	10	0	—	2	30	3	15	2	14	2	5	1	5	0	30	11
	400	1	8	3	10	5	11	6	14	4	8	1	11	2	7	1	5	1	8	1	12	3	9	1	6	0	29	10
	300	2	6	1	13	1	18	7	14	5	14	5	10	3	7	1	12	0	—	0	—	1	8	0	—	0	26	12
	250	0	—	1	9	2	8	4	11	8	16	5	14	0	—	1	20	0	—	1	2	0	—	0	—	0	22	13
	200	0	—	0	—	2	9	3	21	7	22	7	19	1	17	0	—	0	—	0	—	1	22	0	—	0	21	19
	150	0	—	0	—	0	—	7	26	6	19	4	30	1	24	0	—	0	—	0	—	0	—	0	—	0	18	24
	100	0	—	0	—	0	—	6	30	9	36	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	16	32
	70	0	—	0	—	0	—	2	32	3	48	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	41
	60	0	—	0	—	0	—	1	45	1	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	38
	50	0	—	0	—	0	—	2	42	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	42
	40	0	—	0	—	0	—	1	59	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	59
	30	0	—	0	—	0	—	1	35	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	35
	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.

MONTHLY REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — AUGUST 1976

The mean daily air temperature was below normal and the mean daily relative humidity was nearly the same as normal.

Mild summer weather prevailed the whole month. The highest maximnm air temperature was 30.1°C reported on the 24 th.

The mean daily actual sunshine duration was lower than average by 0.5 hour. The mean daily wind speed at 1.5 met. height was higher than last August by 0.5 met./sec.

The highest maximum soil temperatures were lower than the corresponding values of last August at all depths with departures between 2.0°c (at 2 cm.) & 0.1°c (at 10 cm.). The lowest minimum soil temperatures were also lower than last August at all depths with departures between 1.8°c (at 20 cm. & 0.3°c (at 100 cm.)

TAHRIR — AUGUST 1976

The mean daily air temperature was below average and the mean daily relative humidity was the same as average.

Mild summer weather prevailed during the month apart from two short heat waves on the (3*rd*) and (12*th* & 13*th*). The second wave yielded the highest maximum air temperature for the month (36.9°c) on the 13*th*.

The mean daily pan evaporation was lower than average by 1.03 mm. The mean daily wind speed at 1.5 met. height and actual sunshine duration were nearly the same as averag.

The highest maximum soil temperatures were lower than average at all depths with departures between 2.8°c (at 5 cm.) and 1.0°c (at 50 cm.). The lowest minimum soil temperatures were also lower than average at all depths with departures between 2.1°c (at 5 cm.) and 0.9°c (at both 20 & 50 cm.).

BAHTIM — AUGUST 1976

The mean daily air temperature was below average and the mean daily relative humidity was nearly the same as average.

Mild summer weather prevailed during the month and maximum air temperatures were generally below average. The highest maximum air temperature for the month was 34.3°c (on the 3*rd*).

The mean daily actual sunshine duration was slightly higher than average. The mean daily wind speed at 1.5 met. height and pan evaporation were slightly lower than average.

The highest maximum soil temperatures were higher than average at 2, 5, 10 cm. depths with departures between 0.2°c (at 2 cm.) & 1.5°c (at 5 cm.), and lower than average at 20 cm. by 0.1°c. The lowest minimum soil temperature was higher than average at 2 cm. by 0.1°c ; and lower than average at 5, 10, 20 cm. with departures between 1.7°c (at 5 cm.) and 0.4°c (at 10 cm.).

KHARGA — AUGUST 1976

The mean daily air temperature was below average and the mean daily relative humidity was nearly the same as average.

Maximum air temperatures were below average most days of the month, and weather was generally mild apart from two heat waves in the periods (22 *nd* & 23 *rd*) and (25 *th* & 26 *th*). The first wave yielded the highest maximum air temperature (41.0°c) on the 22*nd*.

The mean daily wind speed at 1.5 met. height were lower than average by 0.2 hotr and 2.25 mm. daily actual sunshine duration and pan evaportation were lower than average by 0.2 hour and 2.25 mm. respectively.

The highest. maximum soil temperatures were lower than average at all depths with departures between 2.5°c (at 2 cm.) & 0.4°c (at 10 cm.). The lowest minimum soil temperatures were also lower than average at all depths with departures between 1.8°c (at 10 cm.) & 0.2°c (at 100 cm.).

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

AUGUST — 1976

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. . .	27.9	21.3	24.7	23.0	26.0	24.0	24.0	24.0	24.0	24.0	23.6	10.3	0.0	0.0	0.0	0.0
Tahrir	33.6	18.6	25.1	21.5	27.9	24.0	24.0	24.0	24.0	24.0	20.5	10.9	4.4	0.0	0.0	0·0
Bahtim	31.4	17.5	24.2	20.2	27.3	24.0	24.0	24.0	24.0	24.0	17.8	10.2	3.3	0.0	0.0	0.0
Kharga.	37.0	24.4	31.0	28.8	33.1	24.0	24.0	24.0	24.0	24.0	24.0	22.6	12.9	4.4	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.

AUGUST — 1976

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 . . .	30.1	24	26.7	23	23.0	7,30	18.2	24	16.5	24	—	—
Tahrir	36.9	13	30.4	28	22.3	14	15.4	24	14.0	24	12.8	8
Bahtim.	34.3	3	29 4	8,28	20.0	17	15.2	8,28	12.2	24	12.2	8
Kharga	41.0	22	34.0	29	27.7	5	20.5	31	17.7	31	—	—

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

AUGUST — 1976

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	515.2	354.0	411.5	89	71	61	44	24	16.6	16.9	22.4	12	11.8	25	7.5	—	0.0	0.0	—
Tahrir. .	—	368.7	410.2	90	70	45	33	18	16.2	15.5	19.8	3	11.2	8	5.4	9.43	0.0	0.0	—
Bahtim .	—	348.4	409.2	82	73	48	35	31	16.0	16.0	21.8	19	11.7	1	5.1	7.80	0.0	0 0	—
Kharga .	—	370.2	402.6	92	29	21	11	24	9.5	9.2	13.5	4	5.2	21	17.0	17.44	0.0	0.0	—

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

AUGUST 1976

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	40.3	38.5	34.5	30.6	28.6	26.6	25.0	—	—	—	—	—	—	—	—	—
	L	24.3	23.5	24.2	26.0	27.2	25.2	24.2	—	—	—	—	—	—	—	—	—
Tahrir . . .	H	51.9	45.9	41.0	35.7	32.3	30.5	28.6	27.5	35.1	33.0	30.1	28.6	29.0	28.2	27.4	—
	L	25.7	24.4	25.7	29.3	30.3	29.7	28.2	26.9	23.3	23.0	23.6	25.2	27.2	27.4	26.7	—
Bahtim . . .	H	55.7	47.8	40.6	34.9	31.1	28.9	25.0	23.0	40.6	34.8	30.7	28.8	27.2	25.2	23.9	—
	L	28.8	26.4	28.9	31.4	30.2	27.9	23.7	22.1	22.8	22.3	23.0	25.0	26.1	25.6	23.3	—
Kharga . . .	H	54.7	49.1	43.1	38.0	34.4	33.0	30.8	29.5	—	—	—	—	—	—	—	—
	L	21.5	24.6	27.7	31.4	32.9	32.5	30.2	28.8	—	—	—	—	—	—	—	—

TABLE C 5.—SURFACE WIND

AUGUST 1976

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
M.Matruh . .	4.7	3.6	5.7	31	30	19	4	0	0	0	37	29
Tahrir . . .	2.3	1.5	3.2	31	20	0	0	0	0	0	25	4
Bahtim . . .	1.6	1.0	2.2	11	0	0	0	0	0	0	20	[illegible]
Kharga . . .	4.1	3.0	5.1	31	26	13	4	0	0	0	36	25

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MONTHLY WEATHER REPORT

VOLUME 19 NUMBER 9

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SEPTEMBER, 1976

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 several 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 station.

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
CAIRO

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Note—For explanary notes on the tables please refer to Volume 17, number 1 (January 1976)

General Summary of Weather Conditions

SEPTEMBER 1976

Generally mild weather in north and hot in south

PRESSURE DISTRIBUTION

The area was influenced by :

— The extentisn of monsoon low pressure.

— The high pressure over Central Mediterranean and Libya most of the month.

— A depression passed through Central Mediterranean on the 5th, and two depressions passed through East Mediterranean on the 17 th and 21 st. The mean barometric pressure over Egypt was generally above normal.

SURFACE WIND

The prevailing winds were generally light to moderate, and blew mostly from N and NW-ly directions and with a less frequency from NE-ly.

TEMPERATURE

This month was intervened by three heat waves, light at coast and moderate inland with their peaks round the 5 th, 12 th and 18th. Otherwise, weather was mild and maximum air temperatures showed slight to moderate departures below normal.

Minimum air temperatures showed frequent slight to moderate variations below and above normal.

The highest and Lowest maximum air temperatures were respectively 44. 5°C at Dakhla on the 22nd and 23.6°C at Sidi Barrani on the 25th.

The highest and Lowest minimum air temperatures were respectively 28.8°C at Kharga on the 22nd and 11.2°C at both Bahtim and Tahrir on the 27th.

PRECIPITATION

No rain was reported except on the western coast on the 21st, 22nd *and* 24th.

The maximum daily and monthly rainfall amounts were respectively 30.2 mm. at Mersa Matruh on the 24th and 30.5 mm. at the same station.

OTHER WEATHER PHENOMENA

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

Rising sand was reported in few days at scattered places.

Cairo, August 1977.

Chairman (M. S. ELDIN HARB)

Board of Directors

Cairo, April 1979

Table A3. — SKY COVER RAIN FALL

SEPTEMBER — 1976

Station	Mean Sky Cover oct.					Rain Fall 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	3.6	2.6	2.6	1.7	2.7	16.0	+14.2	16.0	24	0	1	1	1	1	0	0
Mersa Matruh (A)	1.2	2.8	2.0	1.5	1.9	30.5	+29.3	30.2	24	0	2	2	2	1	1	0
Alexandria (A)	1.9	2.4	3.3	2.1	2.4	Tr.	— 1.2	Tr.	21,24	2	0	0	0	0	0	0
Port Said (A)	1.3	1.8	0.9	1.1	1.2	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.5	1.9	1.3	0.1	1.0	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Cairo (A)	1.0	2.0	0.8	0.4	1.2	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.7	0.3	0.2	—	0 0	— Tr.	0.0	—	0	0	0	0	0	0	0
Minya	0.0	0.6	0.7	0.2	0.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.4	0.1	0.2	0.1	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.1	0.2	0.6	0.3	0.3	Tr.	0.0	Tr.	28	1	0	0	0	0	0	0
Aswan (A)	0.0	0.9	1.2	0.4	0.7	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	0.3	0.5	0.9	0.1	0.5	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Bahariya	0.0	1.0	0.5	0.3	0.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.7	1.0	0.5	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.2	0.4	0.1	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.5	0.5	0.0	0.3	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.2	0.5	0.9	0.5	0.5	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Quseir	0.2	0.5	0.4	0.5	0.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0

Table 3 :- DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

SEPTMBER 1976

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 Metres	Fog Vis <1000 Metres	Haze Vis ≥1000 Metres	Thick Haze Vis <1000 Metres	Dust or Sandrisin Vis ≤1000 Motres	Dust or Sandstorm Vis >1000 Motres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice Pellets	Hail											
Sallum	1	0	0	0	0	0	0	0	0	0	4	0	0	10	0
Mersa Matruh (A)	2	0	0	0	0	0	15	1	2	0	6	0	0	16	0
Alexandria (A)	0	0	0	0	0	0	3	2	0	0	0	0	0	12	0
Port Said (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	10	0	0	0	0	0	0	25	0
Cairo (A)	0	0	0	0	0	0	13	1	0	0	4	0	0	22	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	7	0	0	0	0	0	0	28	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	2	0	0	30	0
Luxor (A)	0	0	0	0	0	0	0	0	11	0	4	1	0	29	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	4	0	0	24	0
Siwa	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	28	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	0	0	0	29	0
Kharga	0	0	0	0	0	0	0	0	0	0	4	0	0	29	0
Ier	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	2	0	0	27	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0

Table A5—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

SEPTEMBER—1976

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	225/245	255/284	285/314	315/344	All direction
Sallum	28	9	0	1—10	55	77	108	36	14	4	4	5	9	28	75	137	550
				11—27	16	23	10	0	0	0	0	1	10	5	17	51	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	**71**	**100**	**116**	**36**	**14**	**4**	**4**	**6**	**19**	**33**	**92**	**188**	**683**
Mersa Matruh	34	0	0	1—10	62	51	14	10	10	17	26	38	48	56	22	124	478
				11—27	23	20	0	2	5	0	3	3	1	2	31	118	208
				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**	**71**	**14**	**12**	**15**	**17**	**29**	**41**	**49**	**58**	**53**	**242**	**686**
Alexandria	11	0	0	1—10	159	64	14	13	12	13	19	16	15	9	32	174	540
				11—27	27	7	0	0	0	0	0	1	1	1	27	105	169
				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	**186**	**71**	**14**	**13**	**12**	**13**	**19**	**17**	**16**	**10**	**59**	**279**	**709**
Tanta	34	0	0	1—10	120	105	26	3	1	6	6	9	50	39	92	153	610
				11—27	33	19	2	0	0	0	0	0	1	1	2	18	76
				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	**153**	**124**	**28**	**3**	**1**	**6**	**6**	**9**	**51**	**40**	**94**	**171**	**686**
Cairo	49	1	1	1—10	119	112	22	9	3	0	0	3	5	65	67	104	518
				11—27	80	28	5	2	0	0	0	3	2	2	6	23	151
				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	**199**	**140**	**27**	**11**	**3**	**0**	**0**	**6**	**7**	**67**	**82**	**127**	**669**
Fayoum	6	3	0	1—10	278	352	12	2	0	1	2	5	3	6	8	41	710
				11—27	0	1	0	0	0	0	0	0	0	0	0	0	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	**278**	**353**	**12**	**2**	**0**	**1**	**2**	**5**	**3**	**6**	**8**	**41**	**711**
Minya	17	3	1	1—10	437	59	3	0	0	1	0	0	3	1	8	76	588
				11—27	96	12	0	0	0	0	0	0	0	0	0	3	111
				28—48	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	**533**	**71**	**3**	**0**	**0**	**1**	**0**	**0**	**3**	**1**	**8**	**79**	**699**
Asyout	9	1	0	1—10	108	57	6	9	9	2	1	2	5	5	28	162	394
				11—27	166	50	0	0	0	0	0	0	0	0	2	98	316
				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	**274**	**107**	**6**	**9**	**9**	**2**	**1**	**2**	**5**	**5**	**30**	**260**	**710**

Tabe A5—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

SEPTEMBER—1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	number in hours of occurrences wind blowing form 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	38	0	0	1—10	105	52	30	31	23	27	58	67	46	62	100	76	677
				11—27	3	0	0	0	0	0	0	0	0	0	0	2	5
				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	**108**	**52**	**30**	**31**	**23**	**27**	**58**	**67**	**46**	**62**	**100**	**78**	**682**
Aswan	0	0	0	1—10	263	61	11	3	1	8	2	2	3	31	53	100	538
				11—27	114	12	1	1	0	0	0	0	0	1	10	43	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	**377**	**73**	**12**	**4**	**1**	**8**	**2**	**2**	**3**	**32**	**63**	**143**	**720**
Siwa	62	15	0	1—10	44	97	109	84	36	32	18	8	12	22	44	89	595
				11—27	0	17	16	7	1	0	0	0	0	0	2	5	48
				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	**44**	**114**	**125**	**91**	**37**	**32**	**18**	**8**	**12**	**22**	**46**	**94**	**643**
Dakhla	3	7	0	1—10	103	55	25	16	8	11	22	26	33	39	98	168	604
				11—27	41	31	1	1	0	0	0	0	0	0	0	31	105
				28—47	0	1	0	0	0	0	0	0	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**144**	**87**	**26**	**17**	**8**	**11**	**22**	**26**	**33**	**39**	**98**	**199**	**710**
Kharga	0	0	0	1—10	292	79	12	2	5	1	1	2	2	4	13	86	499
				11—27	179	23	0	0	0	0	0	0	0	0	0	19	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	**471**	**102**	**12**	**2**	**5**	**1**	**1**	**2**	**2**	**4**	**13**	**105**	**720**
Hurghada	2	1	0	1—10	74	40	3	1	0	4	0	0	0	10	121	81	334
				11—27	73	6	0	0	0	0	0	0	0	0	54	250	383
				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	**147**	**46**	**3**	**1**	**0**	**4**	**0**	**0**	**0**	**10**	**175**	**331**	**717**
Quseir	1	1	0	1—10	142	9	3	1	0	1	6		12	46	173	188	587
				11—27	46	1	0	0	0	0	0	0	0	0	3	81	131
				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**	**10**	**3**	**1**	**0**	**1**	**6**	**6**	**12**	**46**	**176**	**269**	**718**

UPPER AIR CLIMATOLOGICAL DATA

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

SEPTEMBER — 1976

Station	Pressure Surface Millibar	Altitune 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	1012mb.*	1015mb.*	1009mb.*	30	22.3	26.2	19.0	30	16.4
	1000	30	131	158	106	30	21.8	25.2	18.4	30	17.0
	850	30	1529	1570	1493	30	16.5	26.6	07.0	30	04.0
	700	29	3158	3226	3091	29	07.0	14.6	00.6	28	— 7.9
	600	29	4410	4513	4313	29	— 0.8	08.5	— 7.7	28	—15.1
	500	29	5844	5991	5715	29	— 9.1	— 1.8	—16.3	28	—23.4
	400	28	7529	7651	7366	28	—20.8	—13.3	—27.5	27	—34.2
	300	28	9593	9765	9393	28	—35.9	—26.4	—44.0	26	—47.6
	250	26	10851	10995	10597	26	—44.7	—36.4	—50.8	25	—55.4
	200	25	12305	12567	12037	25	—54.5	—47.7	—62.0	22	—64.7
	150	25	14117	14409	13858	25	—62.4	—57.9	—66.5	1	—70.9
	100	17	16579	16849	16385	17	—68.2	—58.4	—76.3	—	—
	70	8	18773	18982	18668	8	—64.6	—58.4	—67.7	—	—
	60	7	19782	19950	19600	7	—60.7	—57.5	—66.4	—	—
	50	6	20834	21082	20756	6	—56.4	—50.3	—59.7	—	—
	40	5	22392	22600	22300	5	—56·2	—54.1	—58.5	—	—
	30	4	24152	24322	24016	4	—53.2	—51.5	—54.2	—	—
	20	3	26741	26878	26606	3	—49.1	—48.4	—50.1	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	30	997m.b.*	1001 m.b.*	988m.b.*	30	21.8	24.8	18.8	30	17.3
	1000	29	114	131	036	6	20.4	24.6	18.8	6	18.6
	850	29	1519	1575	1473	29	18.0	25.2	10.0	29	1.6
	700	29	3159	3228	3092	29	09.6	18.9	02.6	29	— 7.4
	300	29	4420	4494	4391	29	01.4	05.8	—02.9	29	—12.5
	500	29	5866	5956	5783	29	—07.1	— 0.9	—13.0	29	—22.4
	400	29	7575	7701	7461	29	—17.9	—10.0	—25.2	29	—34.0
	300	29	9667	9858	9488	28	—33.0	—25.2	—46.4	28	—46.2
	250	29	10927	11154	10718	29	—42.2	—36.3	—49.1	28	—54.2
	200	29	12408	12670	12166	29	—51.2	—46.1	—59.7	28	—61.5
	150	26	14231	14535	13982	25	—59.7	—56.1	—61.8	11	—63.5
	100	19	16737	17006	16510	19	—68.4	—60.9	—75.7	—	—
	70	11	18872	19002	18728	11	—66.7	—60.5	—72.3	—	—
	60	7	19853	19970	19740	7	—64.0	—61.9	—65.9	—	—
	50	7	20939	21070	20846	7	—61.0	—59.5	—62.5	—	—
	40	3	22423	22490	22330	3	—58.3	—57.1	—59.0	—	—
	30	3	24150	24215	24065	3	—55.2	—54.8	—55.8	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—		—	—
Aswan 0000 U.T.	Surface	30	988m.b.*	992m.b.*	935m.b.*	30	26.5	31.4	23.2	30	4.8
	1000	30	091	124	059	—	—	—	—	—	—
	850	30	1522	1555	1485	30	22.9	26.6	18.4	30	0.9
	700	29	3175	3206	3127	29	11.0	15.4	08.0	29	—6.9
	600	28	4437	4480	4380	28	0.6	4.8	— 2.3	28	—12.0
	500	28	5878	5923	5819	28	— 7.0	— 3.3	—12.8	27	—23.1
	400	27	7583	7635	7527	27	—17.7	—13.6	—24.4	27	—35.0
	300	26	9669	9747	9570	26	—33.2	—29.0	—40.1	26	—48.2
	250	23	10929	11015	10793	23	—42.9	—37.8	—49.5	23	—56·6
	200	23	12402	12522	12247	23	—53.0	—47.2	—59.0	23	—64.8
	150	21	14206	14355	14057	21	—64.4	—59.7	—66.2	1	—71.4
	100	16	16610	16713	16492	16	—76.3	—69.8	—79.9	—	—
	70	7	18689	18763	18614	7	—69.7	—66.8	—73.8	—	—
	60	4	19654	19730	19568	4	—64.7	—64.4	—65.1	—	—
	50	4	20723	20788	20677	4	—61.1	—57.7	—63.5	—	—
	40	4	22225	22300	22170	4	—58.0	—56.2	—58.9	—	—
	30	4	23946	23994	23907	4	—55.9	—54.3	—57.7	—	—
	20	2	26565	26594	26537	2	—48.0	—47.3	—48.6	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = Number of observations of specified pressure surface.

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

UPPER AIR CLIMATOLOGICAL DATA

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

SEPTEMBER — 1976

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Abbas (Abadan) (A) 1200 U.T.	Surface	29	*[illegible]	*1016m.b.	*1010m.b.	28	[illegible]	34.0	23.[illegible]	29	16.3
	1000	29	[illegible]	176	110	29	[illegible]	35.5	[illegible]	29	14.8
	850	29	[illegible]	1581	1570	29	[illegible]	25.4	[illegible]	29	1.8
	700	29	3176	3248	3109	29	[illegible]	12.8	[illegible]	29	—12.3
	600	29	[illegible]	4816	4652	[illegible]	[illegible]	[illegible]	[illegible]	29	—16.9
	500	29	5870	5989	5730	29	[illegible]	3.2	[illegible]	29	—25.6
	400	29	[illegible]	7707	7390	29	—19.5	[illegible]	[illegible]	29	—35.5
	300	29	9557	9845	9400	29	—3[illegible]	—28.[illegible]	—43.2	29	—49.8
	250	29	10[illegible]	11126	10611	29	[illegible]	—48.1	—60.[illegible]	29	—57.0
	200	29	12570	12929	12046	29	—53.2	49.0	[illegible]	28	—64.8
	150	28	14158	14434	13851	28	[illegible]	[illegible]	—64.6	1	—72.3
	100	28	16870	[illegible]	16415	28	—58.2	—53.5	[illegible]	—	—
	70	28	18540	18993	18659	18	—64.0	57.0	[illegible]	—	—
	50	24	19875	19910	19640	14	—6[illegible]	[illegible]	—70.0	—	—
	30	14	20.50	21117	20749	14	—5[illegible].5	—52.[illegible]	—70.2	—	—
	20	10	22437	23300	22280	10	—5[illegible].0	—45.[illegible]	—53.[illegible]	—	—
	30	[illegible]	24256	24906	24054	3	—37.3	—41.6	[illegible]	—	—
	20	6	26920	27150	26815	3	—42.[illegible]	—37.5	[illegible]	—	—
	10	1	31240	—	—	1	—40.3	—	—	—	—
Bellwan 1200 U.T.	Surface	30	*[illegible]	*1000mb.	*993mb.	30	[illegible]	37.0	[illegible]	30	12.7
	1000	30	106	140	73	[illegible]	[illegible]	—	—	1	11.1
	850	30	1537	1592	1497	30	[illegible]	[illegible]	18.[illegible]	30	3.2
	700	30	[illegible]	3258	3130	30	[illegible]	[illegible]	5.6	30	—10.3
	600	30	[illegible]	4545	4134	29	[illegible]	7.7	[illegible]	29	—17.2
	500	30	[illegible]	[illegible]	5828	30	[illegible]	0.9	—11.0	30	—24.3
	400	29	7843	[illegible]	7513	28	[illegible]	[illegible]	[illegible]	28	—34.5
	300	28	9750	9948	9573	28	—30.2	—25.1	[illegible]	28	—46.5
	250	28	[illegible]	10354	10073	28	[illegible]	—32.0	[illegible]	28	—53.9
	200	27	12581	12806	12280	27	—48.2	—41.6	—56.3	27	—61.2
	150	27	14400	14710	14120	27	—56.1	—52.9	—65.5	27	—64.5
	100	24	16898	17172	16558	24	—53.5	—54.5	[illegible]	1	—65.0
	70	20	18569	19239	18870	20	—59.5	—64.0	—67.5	—	—
	50	18	20091	20309	19900	18	—56.0	—51.0	—55.3	—	—
	30	18	21820	21496	21050	18	—51.0	—41.2	—56.0	—	—
	20	13	[illegible]	22884	22620	13	—4[illegible]	—44.0	—51.2	—	—
	30	12	24559	24712	24433	12	—45.2	—38.0	—50.0	—	—
	20	4	27307	27526	27207	4	—38.5	—32.5	—44.0	—	—
	10	1	32003	—	—	1	—38.7	—	—	—	—
Abbas (A) 1200 U.T.	Surface	30	*988m.b.	*992m.b.	985m.b.	30	38.7	43.0	35.[illegible]	30	—5.1
	1000	30	34	120	31	—	—	—	—	—	—
	850	30	1540	1575	1507	30	[illegible]	32.1	[illegible]	30	—3.5
	700	29	3213	3242	3151	29	[illegible]	15.3	[illegible]	29	—12.5
	600	29	4473	4513	4422	29	[illegible]	[illegible]	[illegible]	29	—18.1
	500	29	5861	5971	5822	29	[illegible]	1.8	—21.[illegible]	29	—27.9
	400	28	7637	7710	7585	28	—26.4	—1[illegible]	—24.5	28	—38.7
	300	28	9738	9833	9629	28	—31.5	—26.[illegible]	—39.0	28	—50.0
	250	28	11032	11207	10858	28	—41.3	—37.5	—48.[illegible]	28	—58.5
	200	28	12436	12594	12317	28	[illegible]	—49.2	—5[illegible].0	27	—66.[illegible]
	150	27	14303	14425	14170	27	—53.3	—57.1	—67.0	1	—69.[illegible]
	100	26	16722	16833	16588	26	—64.6	—70.7	—7[illegible]	—	—
	70	24	18822	18965	18643	24	—67.3	—69.0	[illegible]	—	—
	50	18	19700	19950	19630	18	—63.2	—58.[illegible]	[illegible]	—	—
	30	18	20396	21041	20747	18	—59.0	—54.2	[illegible]	—	—
	40	12	22[illegible].7	22556	22270	12	—54.0	—50.7	—56.[illegible]	—	—
	30	10	24179	24321	24072	[illegible]	—50.3	—46.7	—54.[illegible]	—	—
	20	5	26792	26848	26747	5	—[illegible].2	—4[illegible].6	—48.5	—	—
	10	[illegible]	31542	—	—	1	[illegible]	—	—	—	—

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

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

TABLE B2—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE; THE HIGHEST WIND SPEED IN THE UPPER AIR. SEPTEMBER 1976

	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°0—360)°	Speed in Knots
		(N)	(N)	(N)							(N)	(N)	(N)										
0000 UT	Mersa Matruh	4285 (29)	611 (29)	—14.7 (28)	2720	517	—10.8	3091	709	—3.8	14393 (11)	149 (11)	—65.8 (11)	17250	94	—73.2	11720	213	—60.0	8512	—	270	35
	Helwan	4699 (29)	583 (29)	—15.7 (29)	5740	514	—23.5	3330	684	—8.9	15029 (15)	132 (15)	—65.6 (15)	17650	87	—73.4	12250	198	—58.0	13780	157	195	115
	Aswan	4610 (28)	588 (28)	—13.1 (28)	5380	538	—23.5	4140	621	—4.2	17015 (6)	094 (6)	—76.5 (6)	17730	083	—71.8	16500	162	—78.0	2325	—	280	33
		(N)	(N)	(N)							(N)	(N)	(N)										
1200 UT	Mersa Matruh	4515 (29)	592 (29)	—17.0 (29)	5330	540	—22.8	3260	685	—17.7	14676 (20)	143 (20)	—66.1 (20)	17210	91	—70.5	11480	223	—55.8	13240	178	240	92
	Helwan	5133 (30)	555 (30)	—20.2 (30)	6002	500	—17.0	4310	610	—8.0	15004 (21)	140 (21)	—61.3 (21)	17420	92	—74.3	11310	232	—49.0	14700	142	245	100
	Aswan	4778 (29)	568 (29)	—20.1 (29)	5660	520	—23.4	4420	600	—22.2	16675 (24)	101 (24)	—75.3 (24)	17360	90	—81.3	15350	125	—72.2	13900	157	210	90

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 SEPTEMBER 1976

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	05	1	03	1	04	1	03	0	—	1	05	2	06	1	03	5	08	5	08	4	11	4	10	1	30	7
	1000	2	08	1	09	0	—	0	—	1	08	0	—	0	—	2	08	2	10	2	12	5	13	7	13	0	22	11
	850	2	15	1	15	0	—	0	—	0	—	0	—	0	—	1	13	0	—	7	16	7	13	4	16	0	22	15
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	3	18	0	4	18
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	14	0	—	0	2	14
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	1	09	0	2	13
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	23	0	—	1	18	0	2	20
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	0	—	0	—	0	1	17
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	8	8	5	9	1	11	1	11	0	—	0	—	0	—	0	—	0	—	2	15	3	14	9	13	0	29	11
	1000	3	10	2	12	0	—	1	12	0	—	0	—	0	—	1	8	3	17	1	20	9	18	6	14	0	26	15
	850	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	15	3	19	8	16	7	25	7	15	0	26	16
	700	2	18	0	—	1	3	0	—	0	—	0	—	0	—	1	30	1	14	7	24	8	17	6	20	0	26	19
	600	1	12	1	22	0	—	0	—	0	—	0	—	1	3	1	13	4	29	6	25	9	24	3	7	0	26	21
	500	1	5	0	—	0	—	0	—	0	—	1	1	0	—	1	9	7	27	8	19	8	26	0	—	0	26	22
	400	0	—	0	—	0	—	0	—	0	—	1	2	1	6	0	23	10	37	8	30	2	30	0	—	0	25	30
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	33	5	39	9	44	5	39	2	35	1	13	0	23	40
	250	0	—	0	—	0	—	0	—	0	—	0	—	1	32	7	34	8	45	4	41	0	—	1	25	0	21	39
	200	0	—	0	—	0	—	0	—	0	—	0	—	1	31	6	36	10	41	2	20	0	—	0	—	0	19	38
	150	0	—	0	—	0	—	0	—	0	—	0	—	1	36	5	41	8	46	1	20	0	—	0	—	0	15	42
	100	0	—	0	—	1	20	0	—	0	—	0	—	2	32	5	25	1	25	0	—	0	—	0	—	0	9	26
	70	0	—	0	—	0	—	1	26	0	—	0	—	0	—	1	9	0	—	0	—	0	—	0	—	0	2	18
	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.

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) -- SEPTEMBER 1976

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	1	05	14	16	3	11	2	06	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	07	0	30	[illegible]
	1000	1	04	3	10	0	—	1	04	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	07	0	6	[illegible]
	850	6	19	4	22	1	07	0	—	0	—	0	—	0	—	0	—	2	22	5	09	5	12	7	11	0	29	14
	700	3	13	3	16	1	03	0	—	0	—	0	—	0	—	3	16	5	18	3	20	6	16	4	13	0	28	17
	600	2	16	1	09	0	—	0	—	0	—	1	08	1	10	3	33	7	24	3	28	6	16	4	14	0	28	19
	500	1	12	1	06	0	—	0	—	0	—	0	—	3	08	3	33	8	25	5	27	5	07	2	16	0	28	18
	400	1	17	0	—	1	10	0	—	0	—	0	—	2	12	5	35	12	29	2	36	4	18	1	16	0	28	26
	300	0	—	0	—	0	—	0	—	0	—	0	—	2	12	8	36	11	31	5	32	0	—	1	11	0	27	31
	250	1	04	0	—	0	—	0	—	0	—	0	—	2	10	10	39	9	40	2	21	1	33	0	—	0	25	32
	200	0	—	0	—	0	—	0	—	0	—	0	—	3	24	10	44	8	52	1	27	0	—	0	—	0	22	[illegible]
	150	0	—	0	—	0	—	0	—	0	—	2	22	0	—	8	47	3	47	0	—	0	—	0	—	0	16	42
	100	0	—	0	—	0	—	0	—	1	12	1	39	1	20	1	28	2	30	0	—	0	—	0	—	0	6	26
	70	0	—	0	—	0	—	0	—	1	05	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	5
	60	0	—	0	—	0	—	1	09	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	9
	50	0	—	0	—	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	12
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	0	—	5	12	[illegible]	—	0	—	0	—	0	—	0	—	0	—	0	—	3	9	1	9	2	5	0	30	9
	1000	1	12	0	—	—	—	0	—	1	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	12
	850	3	11	7	16	0	—	2	0	0	—	0	—	0	—	0	—	0	—	[illegible]	[illegible]	6	9	4	11	0	30	12
	700	3	18	2	15	1	10	1	[illegible]	0	—	0	—	0	—	4	26	5	33	[illegible]	[illegible]	5	17	4	15	0	30	18
	600	5	8	6	18	0	—	0	—	0	—	0	—	0	—	1	73	5	16	[illegible]	[illegible]	4	17	1	[illegible]	0	30	18
	500	1	8	0	06	0	—	1	0	1	7	0	—	3	3	3	31	6	32	1	19	6	17	0	—	0	28	21
	400	0	—	0	—	0	—	0	—	0	—	2	4	3	17	5	24	13	39	5	20	0	—	1	2	0	28	24
	300	0	—	0	—	1	17	0	—	0	—	1	14	1	18	9	25	12	39	2	24	0	—	0	—	0	28	31
	250	0	—	0	—	0	—	0	—	0	—	2	10	0	—	9	31	14	47	2	24	0	—	0	—	0	27	38
	200	0	—	0	—	0	—	0	—	0	—	1	25	2	13	10	31	12	45	0	—	0	—	0	—	0	25	30
	150	0	—	0	—	0	—	0	—	0	—	0	—	4	37	7	37	6	64	0	—	0	—	0	—	0	17	46
	100	0	—	0	—	0	—	0	—	0	—	0	—	2	26	2	13	4	42	0	—	0	—	0	—	0	8	39
	70	0	—	0	—	0	—	1	24	0	—	0	—	2	30	0	—	0	—	0	—	0	—	0	—	0	3	32
	60	0	—	1	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	19
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	0	—	0	—	0	—	0	—	0	1	26
	40	0	—	0	—	0	—	1	51	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	51
	30	0	—	0	—	0	—	1	42	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	42
	20	0	—	0	—	0	—	1	9	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	9
	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) — SEPTEMBR 1976

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	20	10	3	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	08	5	07	0	30	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	6	10	5	09	4	09	0	—	0	—	0	—	0	—	0	—	1	06	1	25	5	13	8	13	0	30	11
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	13	1	08	1	19	1	24	0	4	16
	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	16	10	2	6	1	9	0	—	1	5	0	—	0	—	1	10	0	—	2	11	2	8	4	10	1	30	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	1	19	4	10	3	6	1	5	0	—	0	—	0	—	0	—	4	7	6	10	6	12	5	9	0	30	9
	700	0	—	2	10	0	—	0	—	0	—	0	—	1	3	6	23	12	17	4	10	3	11	1	16	0	29	16
	600	1	5	1	9	0	—	0	—	0	—	0	—	2	12	6	19	12	19	5	23	0	—	1	12	0	28	18
	500	0	—	0	—	2	8	3	13	0	—	0	—	3	23	4	15	7	15	4	11	2	8	0	—	0	25	14
	400	1	3	0	—	2	10	2	14	3	13	0	—	0	—	2	18	9	21	5	6	1	6	1	9	0	26	14
	300	0	—	0	—	0	—	7	17	3	12	1	12	1	6	2	18	10	31	1	25	1	13	0	—	0	26	22
	250	0	—	0	—	1	9	2	22	6	20	3	11	1	26	3	35	7	39	3	25	0	—	0	—	0	26	27
	200	0	—	0	—	1	7	3	19	6	24	1	21	1	44	3	44	10	35	1	38	0	—	0	—	0	26	31
	150	0	—	0	—	0	—	1	21	8	25	1	32	2	34	4	52	5	37	2	19	0	—	0	—	0	23	32
	100	0	—	0	—	0	—	1	39	10	31	0	—	1	2	4	41	2	10	0	—	1	25	0	—	0	19	31
	70	0	—	0	—	2	18	6	22	2	17	3	29	1	15	0	—	0	—	0	—	0	—	0	—	0	14	23
	60	0	—	0	—	0	—	3	29	5	24	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	9	24
	50	0	—	0	—	1	26	5	33	2	22	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	30
	40	0	—	0	—	0	—	3	93	2	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	31
	30	0	—	0	—	0	—	1	27	2	27	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	27
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N= The number of cases the wind has been odserved 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 — SEPTEMBER 1976

The mean daily air temperature was slightly below normal, and the mean daily relative humidity was above normal. The total monthly rainfall was 30.5mm. which is appreciably above normal (1.2 mm.).

Weather was generally mild apart from short heat waves on the *5th*, *11th* and *17th*. The last wave yielded the highest maximum air temperature (38.5°c).

The mean daily actual sunshine duration was lower than normal by one hour. The mean daily wind speed at 1.5 met. height was lower than September 1975 by 1.5 met./sec.

The highest maximum soil temperatures were higher than September 1975 at 2, 5, 10 cm. depths with departures between 2.4°c (at 2cm.) and 0.9°c (at 10 cm.) ; and lower at 20, 50, 100 cm. depths with departures between 0.6°C (at 20 cm.) and 1.4°C (at 50 cm.). The lowest minimum soil temperatures were lower than September 1975 at all depths with depaartures between 5.0°c (at 20 cm.) and 1.0°c at (100 cm.).

TAHRIR — SEPTEMBER 1976

The mean daily air temperature was below average, and the mean daily reltive humidity was nearly the same as average. No rain was reported except 0.1 mm. on the 24 th.

Weather was mainly characterized by three heat waves during the periods (3rd-6th), (11th&12th) and (16th - 21st). The second wave yielded the highest maximum air temperature for the month (38.2°c) on the 12th. In the rest of the month, weather was generally mild.

The mean daily wind speed at 1.5 met. height was the same as average. The mean daily actual sunshine duration and evaporation were slightly below average.

The highest maximum soil temperatures were lower than average at all depths with deperatures between 2.3°c (at 2 cm.) and 0.7°c (at 50 cm.). The lowest minimum soil temperatures were also lower than average at all depths with departures between 3.0°c (at 5 cm.) and 1.1°c (at 100 cm.).

BAHTIM — SEPTEMBER 1976

The mean daily air temperature and relative humidity were nearly the same as average.

The month was intervened by three heat maves during the periods (4th-6th). (12th) and (17th-21st). The last wave yielded the highest maximum air temperature (37.8°c) on the 18th. In the rest of the month weather was generally mild.

The mean daily actual sunshine duration was lower than average by 0.9 hour. The mean daily wind speed at 1.5 met. height and pan evaporation were nearly the same as averge.

The highest maximum temperatures were higher than average at 2 and 5 cm. depths by 1.8°c and 1.0°c respectively and lower at 10 and 20 cm. by 0.6° and0.5°c respectively. The lowest minimum soil temperatures were lower than average at depths between 2 and 20 cm. with departures between 0.9°c (at 2 cm) and 2.2°c (at 5 cm.).

KHARGA — SEPTEMBER 1976

The mean daily air temperature was higher than average, while the mean daily relative humidity was lower than average.

The month was intervened by three heat waves during the periods (4th-7th), (11th & 12th) and (18th-25th). The last wave yielded the highest maximum air temperature (44.0°c) on the 22nd. In the rest of the month, weather was generally mild.

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaporation were lower than average by 0.5 hour, 1.0 met./sec. and 1.9 mm. respectively.

The highest maximum soil temperatures were higher than average at depths between 2 and 20 cm. with departures between 3.7°c (at 10 cm.)) and 2.6°c(at 20 cm.) ; and lower than average at 50 and 100 cm by 0.9° and 0.8°c respectively. The lowest minimum soil temperatures were lower than average at all depths with departures between 2.8°c (at 10 cm.and 0.1°c (at 100 cm).

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

SEPTEMBER — 1976

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. .	28.0	19.2	23.7	21.7	25.8	24.0	24.0	24.0	24.0	24.0	20.3	7.9	1.0	0.2	0.0	0.0
Tahrir	33.4	16.8	23.9	19.9	28.0	24.0	24.0	24.0	24.0	23.3	17.2	9.6	3.6	0.1	0.0	0.0
Bahtim	31.9	16.1	23.8	19.6	27.1	24·0	24.0	24.0	24.0	23.1	15.8	9.7	3.8	0.2	0.0	0.0
Kharga	37.6	23.7	31.1	28.4	33.8	24.0	24.0	24.0	24.0	24.0	23.9	20.9	13.4	5.4	1.2	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

SEPTEMBER — 1976

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. . . .	38.5	17	24.0	25	23.6	18	16.0	27	13.8	3	—	—
Tahrir	38.2	12	29.8	26	21.2	7	11.2	27	9.8	27	8.2	27
Bahtim	37.8	18	28.2	27	18.2	21,23	11.2	27	8.6	27	8.0	27
Kharga	44.0	22	31.9	28	23.8	22	18.0	1	14.2	1	—	—

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

SEPTEMBER — 1976

STATION	Soar+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 UT	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
Mersa Matruh .	419.5	302.1	370.6	81	74	62	23	17	16.3	16.6	22.8	6	9.5	4	6.6	—	30.5	30.2	24
Thahrir	—	305 3	370 2	82	68	41	31	12	14.6	14.1	20.1	5	8.7	29	5.2	8.09	0.1	0.1	24
Bahtim	—	291.2	370.2	79	67	40	21	18	14.1	13.6	19.6	6	8.7	27	6.5	8.15	0.0	0.0	—
Kharga	—	324.4	368.7	88	25	17	9	5	7.9	7.8	13.7	10	4.7	3	16.3	16.65	0.0	0.0	—

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

SEPTEMBER—1976

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	42.1	40.3	34.3	30.0	28.0	26.6	25.3	—	—	—	—	—	—	—	—	—
	L	18.1	18.2	18.4	21.0	23.0	25.0	24.8	—	—	—	—	—	—	—	—	—
Tahrir	H	48.3	43.2	38.7	33.8	31.2	29.8	28.5	27.7	31.3	30.0	29.5	27.7	30.8	27.6	27.3	—
	L	21.5	20.2	21.3	25.4	27.7	28.4	28.2	27.5	20.0	20.3	20.5	22.5	25.2	26.1	26.4	—
Bahtim	H	53.7	45.0	37.8	33.5	30.6	28.8	25.8	24.0	39.4	32.6	29.1	27.1	26.4	25.7	24.2	—
	L	24.6	22.2	24.9	27.8	28.7	28.6	25.1	23.2	19.1	19.0	20.0	22.6	24.3	25.0	23.9	—
Kharga	H	56.2	50.9	45.0	39.2	33.7	32.6	30.9	29.9	—	—	—	—	—	—	—	—
	L	19.3	21.7	24.2	28.5	31.9	32.2	30.6	29.5	—	—	—	—	—	—	—	—

TABLE C 5.—SURFACE WIND

SEPTEMBER — 1976

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
Mersa Matruh	3.1	2.1	4.0	30	17	6	0	0	0	0	27	9
Tahrir	2.0	1.2	2.8	20	14	1	0	0	0	0	25	18
Bahtim	1.8	1.1	2.6	20	4	1	0	0	0	0	25	22
Kharga	3.3	2.4	4.1	30	24	11	4	1	0	0	37	7

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MONTHLY WEATHER REPORT

VOLUME 19 NUMBER 10

OCTOBER, 1976

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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 several 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 station.

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

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on tables please refer to Volume 17, Number 1 (January 1976).

GENERAL SUMMARY OF WEATHER CONDITIONS

OCTOBER 1976

Five heat waves prevailed most of the month. Thundery rain over few places during the first and fourth weeks.

PRESSURE DISTRIBUTION

The atmospheric pressure in the region was mainly influenced by:

— development of a secondary depression over Upper Egypt on the 7th.

— transit of five desert depressions through north Egypt & East Mediterrenean on the 12th, 15th,18th, 24th & 27th.

— High pressure over the Mediterrenean & NE Africa in the near of depressions.

The mean atmospheric pressure over Egypt during the month was generally below normal.

SURFACE WIND

Light to moderate NE ly to NW ly winds prevailed most days of the month. By the transit of depressions, surface winds backed to W ly & SW ly fresh to strong at times in scattered places.

TEMPERATURE

This month was mainly characterized by five pronounced heat waves which prevailed most days of the month.

Short mild spells were experienced during the first & fourth weeks with subnormal maximum and minimum temperatures.

The highest and lowest maximum air temperatures were respectively 41.8°C at Dakhla on the 7th and 21.3°C at Sidi Barrani on the 24th and Balteam on the 25th.

The highest and lowest minimum air temperatures were respectively 28.8°C at Abu Simbel on the 12th and 9.2°C at Beni Suef on the 27th.

PRECIPITATION

Scatterd rain fell over the southern parts by the end of the first week and over the northern parts in several days mainly during the fourth week.

Rain was associated with scattered thunderstorms during few days.

Rain was heavy over luxor on the the 6th (7.0mm.) and over few places in the north round the 24th. Otherwise, rain was light and subnormal.

The maximum daily rainfall was 18.0mm. at Sidi-Barrani on the 23rd.

The maximum monthly rainfall was 21.2 mm. also at Sidi-Barrani.

OTHER WEATHER PHENOMENA

Rising sand occured over scattered places together with sandstorms over few places by the break down of heat waves.

Mist developed in the early morning over Delta & Cairo during some days.

Chairman (M. S. ELDIN HARB)

Board of Directors

Cairo, March 1979

SURFACE DATA

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

OCTOBER — 1976

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mm
			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	1013.0	— 2.9	28.6	+1.3	18.9	+ 0.9	23.8	23.3	+ 1.0	18.1	+ 0.1	60	— 2	—	—	—	8.6
Mersa Matruh (A)	1013.7	— 2.7	26.6	—0.4	17.9	+ 1.0	22.2	22.0	+ 0.4	18.1	+ 0.3	70	+ 4	259.5	353.3	73	6.4
Alexandria. . (A)	1013.7	— 2.1	27.8	+0.1	17.2	— 0.4	22.5	22.3	— 0.3	18.4	— 0.4	68	0	260.9	353.9	74	4.0
Port Said	1011.9	— 3.1	29.1	+1.2	20.6	— 1.0	24.8	23.9	— 0.2	20.2	0.0	70	+ 2	261.2	353.9	74	3.9
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1013.3	— 1.8	30.5	+ 0.5	16.7	+ 1.5	23.6	22.9	+ 0.9	18.0	+ 0.1	63	— 3	—	—	—	8.0
Cairo . . . (A)	1013.4	— 1.6	31.0	+ 1.2	18.6	+ 0.8	24.8	21.2	+ 0.8	18.1	0.0	56	+ 5	—	—	—	12.4
Favoum	—	—	32.3	+ 0.7	16.6	— 0.6	24.4	23.9	0.0	18.4	+ 0.4	59	+ 5	—	—		6.2
Minya . . . (A)	1012.0	— 2.2	32.9	+ 1.6	15.9	+ 0.4	24.4	24.1	+ 1.0	17.2	— 0.1	51	— 3	294.2	356.5	83	9.1
Assyout . (A)	1012.9	— 0.6	33.2	+ 2.0	17.3	— 0.5	25.2	25.1	+ 0.8	16.1	— 0.9	37	— 7	—		—	13.8
Luxor . . (A)	1010.9	— 0.9	36.4	+ 1.4	18.6	+ 1.0	27.5	27.4	+ 2.2	18.2	+ 0.4	39	0	—		—	8.0
Aswan . . . (A)	1010.3	— 0.8	37.7	+ 1.4	22.1	+ 2.3	29.9	29.6	+ 1.8	17.3	+ 1.5	25	+ 3	306.9	559.8	85	19.5
Siwa	1012.4	— 3.3	31.6	+ 0.1	16.2	+ 1.2	23.9	23.9	+ 0.8	16.2	+ 0.2	44	0	282.1	355.5	79	10.8
Bahariya	1012.6	— 2.1	32.3	+ 1.2	17.1	+ 1.0	24.7	24.6	+ 0.9	16.4	— 0.2	42	— 2	—	—	—	9.6
Farafra	1013.9	— 2.1	33.4	+ 2.2	16.9	+ 1.5	25.2	24.7	+ 1.5	15.5	+ 1.0	35	— 2	—	—	—	11.9
Dakhla	1012.8	— 0.8	35.5	+ 3.3	17.2	+ 0.9	26.4	26.0	+ 1.4	16.0	+ 0.5	33	+ 1	—	—	—	14.3
Kharga	1011.2	— 1.2	36.3	+ 2.3	21.5	+ 2.8	28.7	29.3	+ 2.1	16.1	+ 0.2	25	— 7	301.5	358.6	85	13.3
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . .	1011.3	— 0.7	30.6	+ 1.7	20.8	+ 1.0	25.7	25.8	+ 0.9	19.2	+ 0.1	51	— 4	303.7	357.3	85	10.0
Quseir	1010.3	— 1.9	30.6	+ 0.6	22.9	— 0.1	26.8	26.6	+ 0.8	20.2	+ 0.6	54	0	—	—	—	8.1

TABLE A2.— MAXIMUM AND MINIMUM AIR TEMPERATURE

OCTOBER — 1976

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	37.8	17	23.4	24	28	8	3	0	0	—	—	24.0	18	15.6	26	0	0	0	0
Merse Matruh (A)	33.6	14	21.4	24	23	5	0	0	0	—	—	21.0	3	14.0	29	0	0	0	0
Alexandria (A)	33.6	14	22.3	25	28	5	0	0	0	—	—	21.6	13	13.2	27	0	0	0	0
Port Said (A)	35.0	15	25.0	25	30	8	0	0	0	—	—	24.8	7	16.7	25	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	35.4	15	25.4	26	31	21	2	0	0	—	—	19.3	13	12.0	1	0	0	0	0
Cairo (A)	37.3	15	25.2	25	31	19	4	0	0	—	—	24.4	12	14.6	26	0	0	0	0
Fayoum	39.5	7	25.9	25	31	21	7	0	0	—	—	21.6	8	12.0	26	0	0	0	0
Minya (A)	41.2	7	27.0	30	31	21	9	1	0	—	—	20.6	8	10.6	26	0	0	0	0
Assyout (A)	40.0	6	25.6	26	31	21	10	0	0	—	—	25.0	7	10.4	27	0	0	0	0
Luxor (A)	40.0	6, 9	28.7	26	31	28	23	0	0	—	—	23.4	6	12.7	31	0	0	0	0
Aswan (A)	41.0	5	29.8	25	31	31	24	7	0	—	—	26.5	9	15.1	26	0	0	0	0
Siwa	39.4	11	24.6	25	30	19	6	0	0	—	—	22.2	8	10.2	26	0	0	0	0
Bahariya	39.2	7	25.7	24.25	31	21	8	0	0	—	—	23.0	8	11.4	27	0	0	0	0
Farafra	39.9	8	26.3	30	31	25	11	0	0	—	—	22.9	9	10.7	26	0	0	0	0
Dakhla	41.8	7	28.3	30	31	27	16	4	0	—	—	23.8	8	10.0	25	0	0	0	0
Kharga	41.2	6	29.4	25	31	28	19	8	0	—	—	27.8	9	11.8	26	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	33.6	8	27.4	25,30	31	20	0	0	0	—	—	24.9	24	16.2	26	0	0	0	0
Quseir	36.7	7	27.2	26	31	16	1	0	0	—	—	26.0	8	19.6	26	0	0	0	0

Table A 8. SKY COVER AND RAINFALL

OCTOBER — 1976

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	3.9	3.0	4.0	2.5	3.3	3.0	—14.8	1.7	23	2	3	1	0	0	0	0
Mersa Matruh (A)	1.5	4.3	4.0	2.6	3.1	5.5	—13.2	1.9	22	1	7	3	0	0	0	0
Alexandria . . (A)	2.3	3.3	4.9	2.6	3.2	17.0	+ 6.7	14.1	24	0	2	2	1	1	0	0
Port Said . . (A)	2.1	2.7	2.2	1.4	2.2	1.3	— 6.0	0.6	22	0	3	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1.0	2.5	2.9	0.8	1.8	0.9	— 3.2	0.8	22	0	2	0	0	0	0	0
Cairo . . . . (A)	1.2	2.5	2.5	1.3	1.9	2.7	+ 1.5	2.5	23	0	2	1	0	0	0	0
Fayoum	—	1.3	1.6	0.6	—	Tr.	— 0.8	Tr.	22,23	2	0	0	0	0	0	0
Minya	0.6	1.1	2.0	1.1	1.3	2.0	— 0.5	0.0	—	0	0	0	0	0	0	0
Assyout . . . (A)	0.1	0.9	1.0	0.5	0.6	Tr.	0.0	Tr.	23,24	2	0	0	0	0	0	0
Luxor . . . . (A)	1.0	1.4	1.5	0.9	1.2	7.0	+ 7.0	7.0	6	0	1	1	1	0	0	0
Aswan . . . . (A)	0.9	2.3	1.7	1.6	1.6	0.2	+ 0.2	0.1	6,7	0	2	0	0	0	0	0
Siwa	2.3	1.2	1.8	1.7	1.7	0.0	— 0.5	0.0	—	0	0	0	0	0	0	0
Bahariya	1.0	1.6	2.0	1.1	1.4	2.0	+ 1.8	2.0	22	1	1	1	0	0	0	0
Farafra	—	1.4	1.7	1.0	—	T.r	— 0.7	Tr.	22,23	2	0	0	0	0	0	0
Dakhla	0.3	0.9	1.3	0.5	0.8	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	1.2	1.5	0.6	0.8	T.r	0.0	Tr.	8,23	2	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.2	2.3	2.1	1.0	1.8	0.1	— 0.1	0.1	5	2	1	0	0	0	0	0
Quseir	0.1	2.0	1.8	0.7	1.1	T.r	— 0.8	Tr.	6,7,23	3	0	0	0	0	0	0

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

OCTOBER — 1976

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											
Salluin	3	0	0	0	0	0	0	0	0	0	5	0	0	5	0
Mersa Matruh (A)	7	0	0	0	0	0	8	0	2	0	8	5	0	7	1
Alexandria . (A)	2	0	0	0	0	1	2	2	0	0	1	0	0	6	2
Port Said . (A)	3	0	0	0	0	0	0	0	0	0	1	0	0	15	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	2	0	0	0	0	0	6	0	0	0	0	0	0	19	0
Cairo . . . . (A)	2	0	0	0	0	0	9	2	4	0	6	0	0	16	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya . . . . (A)	0	0	0	0	0	0	3	0	1	0	1	0	0	22	0
Assyut. . . . (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0
Luxor . . . . (A)	1	0	0	0	0	1	0	0	14	0	4	2	1	24	0
Aswan . . . . (A)	2	0	0	0	0	0	0	0	1	0	4	1	0	19	0
Siwa	0	0	0	0	0	0	0	0	0	0	4	0	0	18	0
Bahariya	1	0	0	0	0	1	0	0	0	0	0	0	0	19	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	0	0	0	24	0
Kharga	0	0	0	0	0	1	0	0	0	0	2	0	0	24	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1	0	0	0	0	0	0	0	0	0	0	0	0	23	0
Quseir	0	0	0	0	0	0	0	0	0	0	1	0	0	24	0

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

OCTOBER — 1976

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
				1—10	24	34	104	56	28	33	13	15	14	39	89	76	525
				11—27	2	1	11	6	1	6	4	26	17	27	68	26	195
El Sallum	7	17	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	**26**	**35**	**115**	**62**	**29**	**39**	**17**	**41**	**31**	**66**	**157**	**102**	**720**
				1—10	70	78	32	28	38	17	9	46	64	37	23	67	509
				11—27	2	14	8	10	24	18	22	9	29	26	30	18	210
Mersa Matruh . . (A)	22	0	0	28—47	0	0	0	0	1	2	0	0	0	0	0	0	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**72**	**92**	**40**	**38**	**63**	**37**	**31**	**55**	**93**	**63**	**53**	**85**	**722**
				1—10	84	80	44	20	68	43	29	42	15	21	39	113	598
				11—27	3	20	8	0	1	0	0	6	25	35	23	14	135
Alexandria	11	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	**87**	**100**	**52**	**20**	**69**	**43**	**29**	**48**	**40**	**56**	**62**	**127**	**733**
				1—10	82	120	51	23	38	17	15	35	73	35	58	68	615
				11—27	15	7	17	3	6	0	0	0	10	13	14	13	98
Tanta	31	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	**97**	**127**	**68**	**26**	**44**	**17**	**15**	**35**	**83**	**48**	**72**	**81**	**713**
				1—10	87	105	47	29	26	14	36	18	21	31	26	49	489
				11—27	37	41	3	4	11	5	13	20	22	15	2	3	176
Cairo . . . . (A)	73	6	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	**124**	**146**	**50**	**33**	**37**	**19**	**49**	**38**	**43**	**46**	**28**	**52**	**665**
				1—10	211	226	25	8	19	16	15	41	61	39	15	21	697
				11—27	0	3	4	0	0	0	0	1	5	4	0	0	17
Fayoum	24	6	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	**211**	**229**	**29**	**8**	**19**	**16**	**15**	**42**	**66**	**43**	**15**	**21**	**714**
				1—10	288	71	5	2	11	63	22	9	12	11	28	101	623
				11—27	20	5	0	0	2	0	0	0	0	6	3	1	35
Minya . . . . . (A)	83	3	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	**308**	**76**	**5**	**2**	**11**	**63**	**22**	**9**	**12**	**17**	**31**	**102**	**658**
				1—10	118	48	20	19	23	22	32	28	33	24	77	156	600
				11—27	57	14	1	1	0	1	9	5	0	3	17	36	144
Asyout . . (A)	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	**175**	**62**	**21**	**20**	**23**	**23**	**41**	**33**	**33**	**27**	**94**	**192**	**744**

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

OCTOBER — 1976

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)	150	0	0	1—10	119	57	37	26	22	18	65	48	24	47	48	73	584
				11—27	0	0	0	2	2	0	4	1	1	0	0	0	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	119	57	37	28	24	18	69	49	25	47	48	73	594
Aswan . . . . . (A)	33	0	0	1—10	166	172	34	14	11	23	6	2	0	0	11	148	587
				11—27	27	49	2	0	2	0	2	0	0	0	2	39	123
				28—47	0	0	0	1	0	0	0	0	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	193	221	36	15	13	23	8	2	0	0	13	187	711
Siwa	85	0	0	1—10	8	35	81	79	64	38	31	18	20	65	102	53	594
				11—27	0	0	1	0	0	9	11	6	10	14	14	0	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	8	35	82	79	64	47	42	24	30	79	116	53	659
Dakhla	24	17	0	1—10	68	66	24	43	30	33	39	31	36	30	99	172	671
				11—27	12	15	0	0	0	0	0	0	0	1	2	2	32
				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	81	24	43	30	33	39	31	36	31	101	174	703
Kharga	13	0	0	1—10	264	89	19	8	15	9	10	6	5	12	40	86	563
				11—27	128	30	0	0	0	0	0	0	1	0	0	9	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	392	119	19	8	15	9	10	6	6	12	49	95	731
Hurghada	7	4	0	1—10	34	41	17	7	22	20	4	4	7	30	156	56	398
				11—27	76	7	2	1	1	2	1	0	1	5	76	163	335
				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	110	48	19	8	23	22	5	4	8	35	232	219	733
Quseir	3	3	0	1—10	116	38	17	12	16	19	23	13	15	112	191	73	645
				11—27	36	1	0	0	0	0	0	1	0	0	9	46	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	152	38	17	12	16	19	23	14	15	112	200	119	738

UPPER AIR CLIMATOLOGICAL DATA

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

OCTOBER 1976

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	30	*1011m.b.	*1017m.b.	*1005m.b.	30	20.6	23.6	16.2	30	16.1
	1000	30	122	174	70	30	20.6	25.6	16.8	30	15.4
	850	30	1513	1554	1445	30	14.4	20.2	8.6	30	1.8
	700	29	3128	3192	3024	29	5.4	8.8	— 2.6	29	— 8.5
	600	29	4368	4428	4236	29	— 3.2	0.8	— 8.4	29	—16.2
	500	29	5788	5847	5626	29	—12.8	— 9.1	—18.9	29	—24.1
	400	29	7449	7528	7246	29	—25.1	—22.3	—29.8	28	—36.6
	300	29	9475	9578	9256	29	—40.7	—38.0	—45.3	29	—48.6
	250	29	10 88	10810	10498	29	—49.9	—46.7	—56.5	29	—56.6
	200	29	12119	12266	11922	29	—58.2	—51.1	—61.9	18	—65.2
	150	29	13802	14083	13703	29	—64.1	—58.0	—71.1	2	—68.4
	100	26	16383	16533	16184	26	—64.8	—61.3	—68.9	—	—
	70	26	18573	18744	18364	26	—62.0	—57.8	—65.7	—	—
	60	18	19562	19680	19400	18	—60.8	—54.0	—65.2	—	—
	50	18	20674	20834	20431	18	—59.5	—56.5	—63.4	—	—
	40	10	22136	22220	21930	10	—58.1	—54.4	—62.2	—	—
	30	9	23892	24026	23626	9	—55.2	—54.3	—62.1	—	—
	20	4	26448	26656	26240	4	—52.5	—46.0	—61.8	—	—
	10	1	31096	—	—	1	—44.8	—	—	—	—
Helwan 0000 UT	Surface	31	*997 m.b.	*1002m.b.	*992m.b.	31	20.6	26.0	15.6	31	14.3
	1000	31	113	157	070	4	18.1	19.6	17.0	4	13.4
	850	31	1511	1559	1457	31	16.3	24.2	08.0	31	04.8
	700	31	3133	3242	3056	31	07.2	18.0	—05.1	30	—06.5
	600	31	4392	4487	4289	31	—01.6	03.7	—09.2	29	—11.9
	500	30	5817	5915	5700	30	—11.5	—07.3	—18.1	30	—24.2
	400	29	7512	7685	7405	29	—23.2	—20.4	—25.7	29	—33.8
	300	29	9541	9602	9434	29	—38.6	—33.5	—41.9	29	—48.2
	250	29	10773	10916	10646	29	—47.7	—43.5	—50.7	29	—56.5
	200	29	12254	13305	12073	29	—56.8	—52.1	—63.3	26	—64.0
	150	28	14015	14214	13831	28	—63.4	—58.9	—69.4	3	—68.7
	100	19	16486	16702	16256	19	—65.1	—58.7	—69.3	—	—
	70	13	18047	18870	18473	13	—63.8	—61.7	—66.7	—	—
	60	9	19583	19700	19450	9	—62.3	—59.9	—64.8	—	—
	50	9	20699	20940	20548	9	—61.1	—58.5	—63.9	—	—
	40	6	22140	22250	22010	6	—58.8	—57.0	—62.3	—	—
	30	5	23862	23989	32723	5	—56.4	—55.1	—58.1	—	—
	20	1	26585	—	—	1	—54.1	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 UT	Surface	31	*989m.b.	*993m.b.	*987m.b.	31	24.9	29.6	18.0	31	06.6
	1000	31	099	131	078	—	—	—	—	—	—
	850	31	1526	1546	1506	31	21.9	25.4	16.0	31	01.4
	700	31	3177	3208	3146	31	08.5	10.8	05.5	30	—05.8
	600	31	4427	44 9	4398	31	—01.0	03.0	—05.0	31	—13.4
	500	31	5859	5905	5812	31	—10.1	—07.6	—14.1	31	—26.0
	400	31	7542	7602	7474	30	—22.2	—20.1	—25.6	30	—35.7
	300	30	9593	9667	9484	30	—38.1	—34.9	—43.5	30	—49.8
	250	30	10823	10912	10784	30	—47.4	—43.4	—53.6	30	—57.0
	200	30	12272	12372	12080	30	—57.0	—54.8	—61.6	28	—65.7
	150	28	14049	14102	13814	28	—66.4	—61.2	—73.3	—	—
	100	25	16402	16551	16202	25	—72.0	—68.4	—76.5	—	—
	70	18	18583	18711	18358	18	—67.0	—63.1	—70.7	—	—
	60	14	19484	19640	18700	14	—63.7	—61.0	—67.4	-	—
	50	14	20643	20805	20438	14	—62.0	—59.6	—66.0	—	—
	40	9	22131	22300	21970	9	—59.3	—57.6	—60.8	—	—
	30	8	23876	24075	23747	8	—54.6	—52.0	—57.3	—	—
	20	4	26478	26603	26369	4	—49.1	—47.5	—50.8	—	—
	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 —MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHEST & LOWEST VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

OCTOBER 1976

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	31	1011*mb.	1016*mb.	1004*mb.	31	25.4	32.0	21.0	31	14.9
	1000	31	120	165	63	31	18.0	30.6	19.6	31	13.9
	850	31	1519	1555	1448	31	15.4	21.6	6.5	31	[illegible].0
	700	31	3142	3265	3030	31	6.9	11.2	—1.8	31	—10.6
	600	31	4388	4459	4250	31	—1.6	4.3	—8.9	31	—16.7
	500	31	5811	5901	5645	31	—12.0	—7.7	—15.5	31	—27.0
	400	30	7482	7593	7309	30	—24.0	—20.9	—33.9	30	—38.0
	300	30	9917	9951	9509	30	—39.5	—33.9	—46.9	30	—52.9
	250	29	10750	10935	10531	29	—48.9	—45.3	—57.1	28	—60.8
	200	29	12195	12744	11956	29	—56.8	—49.7	—65.7	27	—62.4
	150	28	13975	14131	13716	28	—63.1	—55.2	—68.5	3	—70.4
	100	26	16460	16632	16167	26	—63.8	—60.3	—67.7	—	—
	70	22	18661	18826	18525	22	—60.6	—54.5	—66.0	—	—
	60	14	19695	19940	19460	14	—59.4	—57.2	—65.3	—	—
	50	14	20901	20956	20566	14	—56.9	—52.9	—60.0	—	—
	40	8	22276	22400	22020	8	—51.7	—50.6	—57.7	—	—
	30	6	24089	24229	23989	6	—52.8	—47.8	—58.5	—	—
	20	4	26815	26931	26731	4	—45.4	—44.1	—46.8	—	—
	10	1	31532	—	—	1	—32.9	—	—	—	—
Helwan 1200 U.T.	Surface	31	996*mb.	1000*mb.	991*mb.	31	30.0	36.2	23.1	31	09.7
	1000	31	105	143	065	2	25.0	25.1	25.0	2	11.2
	850	31	1522	1560	1465	31	17.3	24.3	09.5	31	01.3
	700	31	3159	3227	3061	30	09.0	12.9	00.2	30	—07.9
	600	31	4415	4498	4295	31	00.2	05.6	—03.0	31	—14.8
	500	31	5852	5931	5724	30	—09.5	—06.8	—13.5	30	—25.0
	400	31	7538	7630	7405	31	—21.3	—18.0	—25.3	31	—36.0
	300	30	9602	9704	9444	30	—36.5	—33.3	—39.5	30	—49.2
	250	29	10838	10965	10669	29	—45.6	—42.1	—49.3	29	—57.2
	200	28	12298	12446	12127	28	—53.9	—50.2	—59.3	24	—64.6
	150	28	14119	14281	13954	28	—60.[illegible]	—56.4	—69.5	14	—68.8
	100	22	16634	16801	16424	22	—61.4	—57.0	—67.1	1	—69.7
	70	14	18874	19023	18691	14	—58.7	—55.5	—63.6	—	—
	60	11	19870	20030	19690	11	—55.3	—52.5	—59.5	—	—
	50	11	20996	21171	20810	11	—53.2	—48.7	—56.0	—	—
	40	9	22536	22770	22350	9	—49.6	—45.5	—53.4	—	—
	30	7	24339	24577	24112	7	—47.6	—40.7	—52.1	—	—
	20	2	27164	27384	26943	2	—37.4	—34.2	—40.6	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface	31	988*mb.	991*mb.	986*mb.	31	37.3	41.4	29.8	31	06.4
	1000	31	086	113	063	—	—	—	—	—	—
	850	31	1538	1561	1514	31	24.7	30.1	17.8	31	—02.7
	700	31	3198	3233	3160	31	11.1	15.0	08.2	31	—11.3
	600	31	4462	4505	4430	31	01.1	05.6	—01.4	31	—17.3
	500	30	5901	5952	5862	30	—08.7	—05.0	—11.6	30	—29.3
	400	27	7591	7654	7548	27	—20.5	—17.1	—22.7	26	—40.3
	300	25	9652	9737	9605	25	—36.5	—33.5	—39.9	25	—53.3
	250	25	10890	10994	10834	25	—46.1	—42.9	—48.5	25	—61.3
	200	25	12346	12463	12276	25	—55.4	—52.1	—59.0	25	—68.5
	150	25	14141	14263	14054	25	—64.7	—61.6	—68.8	—	—
	100	25	16575	16673	16490	25	—70.2	—65.4	—75.3	—	—
	70	23	18706	18783	18618	23	—67.1	—63.0	—75.7	—	—
	60	20	19694	19850	19580	20	—62.7	—59.9	—64.9	—	—
	50	20	20782	20845	20678	20	—58.9	—54.2	—66.0	—	—
	40	15	22382	22570	22140	15	—55.5	—52.1	—58.6	—	—
	30	12	24066	24153	23911	12	—51.5	—49.7	—53.5	—	—
	20	6	26765	26825	26677	6	—45.7	—41.8	—49.4	—	—
	10	1	31506	—	—	1	—38.6	—	—	—	—

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

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

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

OCTOBER — 1976

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)										
Mersa Matruh . (A)	3918 (29)	636 (29)	—13.9 (29)	4480	596	—22.1	2720	728	— 3.5	13893 (27)	154 (27)	—65.2 (27)	16250	108	—67.5	10650	249	—37.6	4860	594	230	53
Helwan . . (A)	4148 (31)	619 (31)	—13.5 (29)	4680	581	—22.7	3540	662	—	14049 (16)	149 (16)	—64.1 (16)	15690	112	—69.5	12840	182	—60.0	11350	227	230	130
Aswan . . . . (A)	4307 (31)	610 (31)	—12.7 (80)	4860	569	—20.2	3820	645	—10.4	15032 (14)	132 (14)	—71.3 (14)	16000	107	74.6	13810	150	—73.8	13000	180	270	96
	(N)	(N)	(N)							(N)	(N)	(N)										
Mersa Matruh (A')	4110 (31)	623 (31)	—15.7 (31)	4880	569	—11.5	2670	735	— 6.8	13547 (26)	184 (26)	—64.3 (25)	15370	141	—62.6	10500	255	—57.0	10880	207	240	110
Helwan. . . . (A)	4403 (31)	603 (31)	—14.3 (31)	4990	563	—24.2	3100	698	—3.2	13989 (19)	156 (19)	—60.2 (19)	16170	111	—63.7	12270	202	—52.8	16420	100	260	142
Aswan . . . . (A)	4592 (30)	591 (30)	—18.2 (30)	5100	559	—25.1	4250	615	—11.0	16037 (22)	112 (22)	—71.5 (22)	18680	071	—69.4	13820	156	—69.0	11750	218	265	100

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) — OCTOBER 1976

Time	Pressure Surface (Millibar)	Wind within 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	3	6	1	8	0	—	4	10	2	8	1	6	5	7	3	8	4	9	3	10	6		1	30	8
	1000	2	22	3	10	1	16	1	13	3	11	2	14	0	—	3	12	4	10	5	15	3	19	3	12	0	30	14
	850	2	14	1	13	1	10	0	—	1	13	1	9	1	13	6	26	5	20	4	20	5	19	3	10	0	30	19
	700	0	—	1	8	2	10	2	4	0	—	0	—	2	31	4	26	7	29	8	25	1	25	1	19	0	28	23
	600	0	—	1	4	0	—	0	—	0	—	1	6	2	30	1	20	10	35	10	22	2	21	1	10	0	28	25
	500	1	7	0	—	1	8	0	—	0	—	0	—	1	7	2	22	9	31	6	28	1	26	0	—	0	21	25
	400	1	13	0	—	0	—	0	—	0	—	0	—	1	20	1	23	2	30	5	18	0	—	0	—	0	10	20
	300	1	23	0	—	0	—	0	—	0	—	0	—	0	—	2	20	0	—	2	31	0	—	0	—	0	5	25
	250	0	—	0	—	0	—	0	—	0	—	1	15	0	—	0	—	0	—	1	14	0	—	0	—	0	2	14
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0		1	10	0	—	0	1	10
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	3	9	6	8	2	10	1	24	1	9	0	—	3	18	1	17	1	30	4	14	3	11	6	11	0	31	13
	1000	0	—	5	13	0	—	1	23	1	5	1	13	3	22	1	20	2	18	5	18	5	19	7	15	0	31	17
	850	1	14	0	—	0	—	3	13	0	—	1	8	2	30	5	21	7	18	6	19	1	12	5	10	0	31	17
	700	1	6	2	6	0	—	0	—	0	—	1	6	2	18	6	33	9	30	6	24	1	24	2	12	0	30	24
	600	1	12	1	1	1	2	0	—	1	6	0	—	1	27	6	37	10	26	5	37	4	23	0	—	0	30	27
	500	0	—	2	7	1	8	0	—	0	—	0	—	3	16	3	20	8	26	3	32	1	18	0	—	0	21	21
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	17	7	33	3	25	1	6	2	6	0	18	23
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	14	5	33	4	30	1	6	1	2	0	14	24
	250	1	13	0	—	0	—	0	—	0	—	2	18	0	—	1	27	6	34	2	42	3	12	0	—	0	15	27
	200	1	17	0	—	0	—	0	—	0	—	0	—	0	—	1	15	5	43	3	41	2	22	0	—	0	12	34
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	43	4	44	3	37	0	—	0	—	0	8	41
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	38	2	24	2	10	0	—	0	—	0	7	27
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	20	1	10	1	27	0	—	0	—	0	4	24
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	1	10
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within 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 1976

Time	Pressure Surface (Millibar.)	Wind within 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 G.T.	Surface	9	07	9	09	2	12	4	10	1	05	1	04	0	—	0	—	0	—	0	—	0	—	2	04	3	31	7
	1000	2	06	2	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	10
	850	4	14	5	08	1	10	1	07	3	11	0	—	2	06	3	14	4	16	3	19	2	12	3	14	0	31	12
	700	0	—	2	12	1	17	0	—	0	—	2	10	0	—	5	20	9	25	6	25	5	22	1	15	0	31	21
	600	0	—	1	11	0	—	0	—	1	02	1	11	0	—	4	19	9	27	8	26	6	33	0	—	0	30	25
	500	1	31	0	—	0	—	0	—	1	07	1	11	1	14	2	16	12	29	10	33	1	40	0	—	0	29	28
	400	0	—	0	—	0	—	0	—	1	14	0	—	3	28	2	21	13	29	5	55	4	42	1	12	0	29	35
	300	0	—	0	—	1	06	0	—	1	17	1	45	0	—	1	18	11	43	9	44	0	—	1	08	0	25	41
	250	0	—	0	—	0	—	0	—	1	09	0	—	0	—	5	36	11	43	5	60	1	56	0	—	0	23	44
	200	0	—	0	—	0	—	0	—	1	21	0	—	1	36	2	39	11	61	3	43	1	63	0	—	0	19	52
	150	0	—	0	—	0	—	0	—	0	—	1	49	0	—	1	36	5	58	3	71	0	—	0	—	0	10	56
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 G.T.	Surface	9	08	6	10	0	—	0	—	1	03	1	05	0	—	1	05	5	09	2	06	3	11	3	08	0	31	8
	1000	0	—	2	08	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	8
	850	3	17	2	13	2	07	1	12	1	03	1	04	1	07	3	21	4	14	6	14	8	12	3	08	0	30	13
	700	1	18	1	08	1	10	0	—	0	—	1	06	2	16	8	28	7	23	4	17	5	23	0	—	0	30	21
	600	1	07	0	—	0	—	1	03	0	—	1	09	3	29	5	36	10	24	5	25	4	22	0	—	0	30	25
	500	1	11	0	—	0	—	0	—	0	—	1	10	1	14	8	23	11	32	5	27	1	28	1	24	0	29	26
	400	0	—	0	—	0	—	0	—	0	—	0	—	3	16	5	23	11	32	6	36	0	—	1	31	0	26	29
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	12	8	34	8	49	5	40	2	32	1	16	0	25	38
	250	0	—	0	—	0	—	0	—	0	—	0	—	3	25	4	34	10	45	3	50	1	40	0	—	0	21	41
	200	1	35	0	—	0	—	0	—	0	—	0	—	1	61	4	44	8	48	6	65	0	—	0	—	0	20	51
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	46	6	64	4	72	2	36	0	—	0	16	58
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	58	1	43	2	86	0	—	0	—	0	7	64
	70	0	—	0	—	0	—	0	—	0	—	0	—	1	44	0	—	1	10	0	—	0	—	0	—	0	2	27
	60	0	—	0	—	0	—	1	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	24
	50	0	—	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	10
	40	0	—	0	—	0	—	0	—	0	—	1	17	0	—	0	—	0	—	0	—	0	—	0	—	0	1	17
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

T.N. = 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) OCOTOBER — 1976

Time	Pressure Surface Millibar	Wind between rangoe of direet on (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	17	10	8	08	1	10	3	06	1	13	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	31	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	0	14	7	13	5	11	2	15	1	13	1	10	0	—	1	09	1	04	1	12	1	16	3	11	0	29	12
	700	1	05	2	24	0	—	0	—	0	—	0	—	0	—	0	—	4	22	1	12	1	15	1	08	0	10	18
	600	1	17	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	27	2	12	1	12	1	11	0	9	19
	500	0	—	1	08	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	25	1	12	1	14	0	10	21
	400	1	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	26	7	30	0	—	0	—	0	11	28
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	60	8	40	1	46	1	29	0	11	41
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	73	8	47	2	45	0	—	0	11	51
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	70	9	56	1	73	0	—	0	11	59
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	70	6	66	3	41	0	—	0	10	58
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	48	3	51	3	47	0	—	0	7	45
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	25	0	—	1	20	0	—	0	—	0	2	22
	60	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	02	0	2	6
	50	0	—	0	—	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	12
	40	0	—	0	—	0	—	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	12
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	16	08	4	08	0	—	2	05	1	03	2	06	1	10	0	—	0	—	1	02	1	06	3	09	0	31	7
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	1	09	5	06	6	10	2	08	3	09	2	07	0	—	0	—	2	05	4	09	3	07	2	11	0	30	8
	700	0	—	1	19	0	—	1	06	1	22	5	10	2	14	2	12	7	19	7	12	2	08	1	16	0	29	11
	600	0	—	0	—	0	—	1	09	0	—	3	10	2	10	1	33	7	18	8	22	5	16	2	14	0	29	17
	500	2	08	0	—	0	—	0	—	0	—	1	06	0	—	2	15	10	19	10	18	2	17	0	—	0	27	17
	400	1	13	0	—	0	—	0	—	0	—	0	—	1	15	0	—	7	22	13	29	1	12	1	13	0	24	21
	300	1	25	0	—	0	—	0	—	0	—	0	—	0	—	1	36	1	22	14	42	5	46	0	—	0	22	40
	250	0	—	1	19	0	—	0	—	0	—	0	—	0	—	0	—	2	41	16	45	3	53	0	—	0	22	45
	200	1	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	59	14	57	2	62	0	—	0	20	56
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	3	53	13	58	1	45	1	41	0	19	55
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	25	4	28	4	56	3	37	0	—	0	15	37
	70	1	14	0	—	0	—	0	—	1	05	2	16	2	10	1	13	1	23	1	15	3	18	0	—	0	12	15
	60	0	—	1	10	0	—	0	—	3	08	0	—	1	05	0	—	0	—	0	—	1	10	—	—	0	6	8
	50	0	—	0	—	1	09	2	16	0	—	1	12	1	10	0	—	0	—	0	—	0		—	—	0	5	13
	40	0	—	0	—	0	—	2	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	0	2	11
	30	0	—	0	—	0	—	1	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	0	1	24
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within 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 — OCTOBER 1976

The mean daily air temperature and relative humidity were slightly above normal. The total monthly rainfall was 5.5 mm. against 18.7 mm. for normal.

The month was intervened by five short heat wavés on the 11th, 14th, 17th, 22nd and 27th. The second wave yielded the highest maximum air temperature (33.6°C) on the 14th. In the rest of the month, weather was generally mild.

The mean daily actual sunshine duration was lower than average by 0.3 hour. The mean daily wind speed at 1.5 met. height was higher by 1.0 met./sec. than the corresponding value of October 1975.

The highest maximum soil temperatures were lower than the corresponding values of October 1975 at all depths with departures between 3.5°C (at 2 cm.) and1.2°C (at 20 cm.).

The lowest minimum soil temperatures were also lower than October 1975 at all depths with departures between 0.3°C (at 2 cm.) and 1.6°C (at 50 cm.)

TAHRIR — OCTOBER 1976

The mean daily air temperature was above normal and the mean daily relative humidity was slightly below normal. The total monthly rainfall was only 0.5 mm. against 2.4 mm. for normal.

The month was characterized by a prolonged heat wave which prevailed from the *4th* till the *23rd* and yielded the highest maximum air temperature 37.2°C on the 7th. In the rest of the month, weather was generally mild.

The mean daily actual sunshine duration was slightly below normal. The mean daily wind speed at 1.5 met. height and pan evoporation were slightly higher than normal.

The highest maximum soil temperatures were lower than average at all depths with departures between 1.9°C (at 5 cm.) and 0.3°C (at 10 cm.).

The lowest minimum soil temperatures were the same as average at 5 & 10 cm. depths, and higher than average at 2, 20, 50, 100 cm. depths with departures between 0.2, 0.5°C.

BAHTIM — OCTOBER 1976

The mean daily air temperature was above average and the mean daily relative humidity was nearly the same as average. The total monthly rainfall was 2.2 mm. against 0.2 mm. for average.

The month was characterized by a prolonged heat wave from the *6th* till the *15th* and two short heat waves on the 19th, 22nd. The first heat wave yielded the highest maximum air temperature (37.6°C) on the 15th. In the rest of the month weather was generally mild.

The mean daily actual sunshine duration was lower than average by 0.5 hour. The mean daily wind speed at 1.5 met. height and pan evaporation were nearly the same as average.

The highest maximum soil temperatures were higher than average at 2 &5 cm. depths by 1.4 & 1.3°C respectively ; and lower than average at 10 & 20 cm. depths by 0.7°C & 1.0°C respectively. The lowest minimum soil temperatures were higher than average at 2 cm ; and lower than average at 5, 10,20 cm. depths, the departures varied between 0.1 & 0.9°C

KHARGA — OCTOBER 1976

The mean daily air temperature was above average and the mean daily relative humidity was below average.

The month was characterized by a prolonged heat wave from the *6th* till the *19th* and two short heat waves in the periods (*22nd* & *23rd*) and *28th*. The first wave yielded the highest maximum air temperature 41.2°C on both the *6th* & *12th*. In the rest of the month, weather was generally mild.

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaporation were lower than average by 0.9 hour, 1.2 met/sec. and 1.69 mm. respectively.

The highest maximum soil temperatures were higher than average at depths between 2 & 20 cm. with departures between 7.1°C (at 5 cm.) & 3.8°C (at 20 cm.) ; the same as average at 50 cm. and lower than average at 100 cm. by 0.2°C. The lowest minimum soil temperatures were higher than average at all depths with departures between 1.5°C (at 2 cm.) and 0.3°C (at 10 cm.).

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND
OCTOBER— 1976

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	26.6	17.9	22 1	20.3	24.0	24.0	24.0	24.0	24.0	23.9	17.3	3.9	0.6	0.0	0.0	0.0
Tahrir	31.9	15.5	22.7	18.8	26.5	24.0	24.0	24.0	24.0	21.7	14.9	8.0	2.1	0.0	0.0	0.0
Bahtim	30.5	15 1	22.5	18.6	26.4	24.0	24.0	24.0	24.0	22.3	14.9	7.7	2.2	0.3	0.0	0.0
Kharga	36.3	21.5	29.4	26.6	32.3	24.0	24.0	24.0	24.0	23.9	23.2	18.5	10.2	4.0	0.5	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.
OCTOBER— 1976

STATION	Max. Temp. at 1½ metres (°C)				Min Temp. at 1½ metres. (°C)				Min. Temp. at 5 cms. above groun			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh.....	33 6	14	21.4	24	21.0	3,9	14.0	29	11.7	29	—	—
Tahrir	37.2	7	25.4	25	20 0	13	11.9	27	9.0	30	8.8	
Bahtim	37 6	15	25.6	25.30	19.8	13	11.2	30	8.0	27	7.5	27.30
Kharga	41.2	6.12	29.4	25	27.8	9	11.8	26	9.0	26	—	-

Table C 3 — (SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL.
OCTOBER— 1976

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 UT	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day	Date
M. Matruh	318 9	259.5	353 3	73	70	58	15	27	13.8	14.0	18.8	12	4.5	27	6 4	—	5.5	1.9	22
Tahrir....	—	284.6	354.1	80	67	40	24	23	13.2	12.4	19.9	8	7.1	23	5.3	6.78	0.5	0.5	22
Bahtim ...	—	281.3	354.7	79	63	37	18	12,15	12 4	11.6	19.8	8	7.5	23	6.8	7.00	2.2	1.5	23
Kharga ...	—	304.5	358.6	85	25	18	9	15,18	7 3	7.8	12.1	3	3.5	22	13.3 —	12 56	0.0	0.0	—

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

OCTOBER — 1976

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	32.7	31.7	28.6	26.0	24.8	24.8	25.4	—	—	—	—	—	—	—	—	—
	L	16.9	16.6	18.0	20.4	22.4	23.7	24.5	—	—	—	—	—	—	—	—	—
Tahrir	H	43.8	38.8	34.9	30.4	28.7	28.3	28.3	27.7	29.7	28.5	27.3	25.5	26.0	25.8	26.3	—
	L	17.9	17.4	18.7	22.4	24.9	26.2	26.9	27.1	17.4	17.7	18.1	20.0	21.6	23.4	24.8	—
Bahtim	H	46.3	39.8	33.1	29.9	28.6	28.6	25.9	24.4	32.4	29.3	27.3	25.2	24.6	24.9	24.2	—
	L	19.1	18.6	21.3	24.1	25.8	26.4	25.8	24.1	15.9	16.5	17.6	20.0	22.0	23.2	23.6	—
Kharga . . .	H	54.5	49.1	43.0	37.0	32.7	32.2	31.0	30.1	—	—	—	—	—	—	—	—
	L	15.7	18.5	21.9	26.3	30.0	31.2	30.6	29.8	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

OCTOBER — 1976

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	Date
Mersa Matruh.	3.7	2.7	4.7	31	17	10	7	4	0	0	39	22
Tahrir	2.0	1.2	2.7	31	17	4	1	0	0	0	34	24
Bahtim	2.1	1.3	3.1	23	12	3	0	0	0	0	33	23
Kharga	2.6	2.2	2.9	28	21	7	2	1	0	0	50	7

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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 several 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 in 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 station.

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

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

NOVEMBER 1976

Changeable autumn weather. A pronounced heat wave in the first week and a pronounced cold wave in the last week.

PRESSURE DISTRIBUTION

The atmospheric pressure was mainly influenced by :

— Transit of 5 depressions through East Mediterranean on the 3 rd, 14 th, 21 st, 25 th & 27 th.

— A pronounced northward elongation of the Sudan low in the period (7 th - 10 th).

— High pressure extending over East Mediterranean & Egypt in the rear of depressions.

SURFACE WIND

The prevailing winds were light to moderate NE to NW lies. Surface winds backed to W & SW, fresh to strong for several days mainly during the last week.

TEMPERATURE

Weather was markedly changeable, and temperature experienced large variability.

The month commenced with a heat wave which prevailed during the first week. Two warm spells sparated by a light cold wave were experienced during the second and third weeks.

The fourth week was characterized by a pronounced cold wave which persisted untill the end of the month.

The highest and lowest maximum air temperatures were respectively 38.1°C at Kharga on the 3 rd and 15.4°C at Sidi Barrani on the 27 th.

The highest and lowest minimum air temperatures were respectively 24.2°C at Kharga on the 10 th and 1.6°C at Dakhla on the 28 th.

PRECIPITATION

Rain was reported during the second and fourth weeks over the northern parts. It was heavy over scattered places at the northern coast during the last week.

The monthly rainfall amounts exceeded normal in some places in the Mediterranean district but were subnormal otherwise.

The maximum daily rainfall was 30.3 mm. at Rosetta on the 26 th.

The maximum monthly rainfall was 72.2 mm. at the same station.

OTHER WEATHER PHENOMENA

Scattered early morning mist developed during several days over Delta Cairo & north of Middle Egypt.

Rising sand was reported during the fourth week over scattered places.

Cairo, MAY 1979

Chairman M. S. (ELDIN HARB)

Board of Directors

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

NOVEMBER — 1976

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.	1015.9	—1.7	23.8	—0.6	14.8	—0.2	19.3	18.7	—0.6	14.3	—0.9	61	+ 1	—	—	—	5.9
Mersa Matruh. (A)	1016.9	—0.9	22.5	—0.9	13.8	+0.4	18.2	18.0	—0.2	14.1	—0.7	67	— 1	208.0	316.8	66	5.2
Alexandria . (A)	1016.5	—0.7	24.3	—0.1	15.0	+0.4	19.6	19.2	—0.0	15.8	—0.3	69	— 1	218.7	317.7	69	3.5
Port Said.. . (A)	1015.3	—1.2	25.8	+1.9	17.2	—1.1	21.5	20.4	—0.4	17.2	—0.4	71	0	240.5	317.7	71	3.4
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1015.6	—1.6	25.8	+0.1	12.7	+0.7	19.2	18.2	—0.2	14.8	+0.4	70	0	231.9	319.0	73	3.4
Cairo . . . . (A)	1016.4	—0.6	25.8	+0.6	14.7	+0.8	20.2	19.8	+0.5	15.1	+0.1	61	0	—	—	—	10.3
Fayoum.	—	—	27.0	+0.5	12.5	—0.6	19.8	19.1	—0.4	15.0	—0.2	64	+ 3	—	—	—	4.4
Minya. . . (A)	1015.9	—0.7	27.0	+0.3	11.2	—0.3	19.1	18.5	+0.4	13.7	—0.3	60	0	264.7	323.4	82	6.5
Assyout. . . (A)	1016.1	—0.1	26.5	—0.2	11.4	—1.5	19.0	18.7	—0.7	12.4	—1.2	48	— 1	—	—	—	8.3
Luxor. . . . (A)	1014.2	—0.4	29.7	—0.1	12.6	—0.3	21.2	21.0	+1.1	14.4	—0.4	48	+ 1	—	—	—	5.7
Aswan. . . . (A)	1013.8	—0.4	30.3	+0.1	16.1	+0.6	23.2	22.4	+0.1	14.1	+0.5	34	+ 2	299.9	331.1	91	14.8
Siwa.	1015.9	—1.7	25.2	—1.0	10.2	0.0	17.7	17.4	—0.6	12.2	—0.5	54	+ 3	262.8	321.8	82	7.9
Bahariya.	1016.3	—0.8	26.6	+0.4	11.9	+0.5	19.2	19.0	+0.6	13.0	—0.4	50	— 1	—	—	—	7.0
Farafra.	1018.0	—0.5	26.8	+0.8	10.8	+0.1	18.8	18.3	0.0	11.9	—0.3	46	+ 2	—	—	—	8.1
Dakhla	1016.5	+0.5	27.9	+0.3	10.4	—0.9	19.2	18.1	—0.9	11.8	—0.4	41	+ 2	—	—	—	10.7
Kharga	1014.8	—0.4	28.9	+0.2	15.1	+2.1	22.0	22.2	+1.4	13.0	—0.4	36	— 6	291.8	327.8	89	8.9
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1014.2	—0.2	27.1	+1.1	16.5	+0.9	21.8	21.6	+0.6	15.6	—0.2	50	— 5	289.6	325.2	89	8.9
Quseir	1013.5	—1.2	27.3	+0.1	19.4	—0.1	23.4	23.1	+0.1	17.2	—0.2	52	— 2	—	—	—	7.3

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

NOVEMBER — 1976

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	30.4	5	16.9	27	11	1	0	0	0	—	—	19.6	8	8.0	26	0	0	0	0
Mersa Matruh (A)	26.8	2	18.8	27	6	0	0	0	0	—	—	19.0	9	9.0	27	2	0	0	0
Alexandria (A)	31.2	2	18.1	27	11	3	0	0	0	—	—	19.8	16	8.0	23	1	0	0	0
Port Said (A)	32.6	4	17.4	27	21	3	0	0	0	—	—	21.8	1	10.8	27	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	34.6	3	17.4	27	17	5	0	0	0	—	—	17.0	5	8.6	23	2	0	0	0
Cairo	35.7	3	18.0	27	18	5	1	0	0	—	—	19.2	3	10.6	30	0	0	0	0
Fayoum	35.6	2	18.4	27	21	7	2	0	0	—	—	17.0	9	5.9	28	7	0	0	0
Minya (A)	36.0	3	18.3	27	20	7	1	0	0	—	—	17.4	17	5.2	28	8	0	0	0
Assyout (A)	36.4	3	16.2	27	16	9	2	0	0	—	—	16.7	3	4.4	28	7	1	0	0
Luxor (A)	35.4	1	20.5	28	23	17	1	0	0	—	—	17.8	3	5.2	29	7	0	0	0
Aswan (A)	37.2	2	18.2	28	24	20	6	0	0	—	—	20.8	10	7.0	28	4	0	0	0
Siwa	31.7	2,4	18.4	27	17	5	0	0	0	—	—	15.0	5	4.5	22	13	2	0	0
Bahariya	37.0	3	16.4	27	19	7	2	0	0	—	—	17.5	4	5.1	23,29	9	0	0	0
Farafra	36.9	3	16.2	27	20	8	1	0	0	—	—	15.8	5	3.7	30	10	2	0	0
Dakhla	37.2	3	18.5	27	22	9	4	0	0	—	—	17.9	11	1.6	28	9	6	0	0
Kharga	38.1	3	19.6	28	23	12	6	0	0	—	—	24.2	10	7.0	26	6	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	31.0	1	21.2	28	23	5	0	0	0	—	—	20.7	8	10.8	28	0	0	0	0
Qusier	30.4	4	21.6	28	23	3	0	0	0	—	—	22.5	1	13.5	28	0	0	0	0

Table A3.—SKY COVER AND RAINFALL

NOVEMBER — 1976

Station	Mean Sky Cover Oct.					Rainfall mms										
	00 U.T,	60 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	<1.0	≥0.1	≥0.1	≥5.0	≥10	≥25	≥50
Sallum	4.6	2.7	3.7	3.0	3.5	3.0	— 268	2 9	26	0	2	1		0	0	0
Mersa Matruh (A)	3.5	4.5	4.5	3.6	4.1	5.1	— 191	2.8	26	0	3	2	0	0	0	0
Alexandria (A)	3.3	4.6	5.1	3.6	4 0	47.1	+139	15.1	27	0	7	6	4	3	0	0
Port Said (A)	2.9	2.8	2.3	2.0	2.3	1.2	— 7.9	0.9	28	0	2	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.8	2.1	3.1	1.1	1.9	1.7	—2.3	1.7	27	0	1	1	0	0	0	0
Cairo	2.2	3.6	3.6	2.0	2.8	Tr.	— 4.2	Tr.	27	1	0	0	0	0	0	0
Fayoum	—	1.0	2.1	0.7	—	0.0	— 0.5	0.0	—	0	0	0	0	0	0	0
Miny (A)	0.6	2.0	2.1	1.0	1.3	0.0	— 0.1	0 0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	1.0	0.7	0.3	0.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.4	0.8	1.2	1.1	0.9	0.0	0.1	0 0	—	0	0	0	0	0	0	0
Aswan (A)	0.3	0.6	1.9	0.5	0.8	0.0	0.1	0.0	—	0	0	0	0	0	0	0
Siwa	1.3	1.1	1.7	0.5	1.0	0.0	— 0.5	0.0	—	0	0	0	0	0	0	0
Bahariya	1.0	1.7	2.1	1.5	1.5	0.0	— 0.5	0 0	—	0	0	0	0	0	0	0
Farafra	—	0.7	1.3	0.8	—	0.0	— 0 1	0 0	—	0	0	0	0	0	0	0
Dakhla	0.0	1.0	1.2	0.2	0 6	0.0	— Tr.	0 0	—	0	0	0	0	0	0	0
Kharga	0.2	0.8	1.1	0.1	0.6	0.0	— 1.1	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurgada	0.5	1.1	1.8	0.4	0.9	0.0	— 0.4	0 0	—	0	0	0	0	0	0	0
Quseir	0.2	1.4	1.5	0.4	0.8	0.0	— 2.1	0.0	—	0	0	0	0	0	0	0

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

NOVEMBER — 1976

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	5	0	0	5	1
Mersa Matruh (A)	3	0	0	0	0	0	5	2	1	0	7	4	0	4	6
Alexandria (A)	7	0	0	0	0	3	1	4	0	0	2	0	0	6	5
Port Said (A)	2	0	0	0	0	0	0	0	0	0	2	1	0	13	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—		—
Tanta	1	0	0	0	0	0	12	0	0	0	1	0	0	19	0
Cairo (A)	0	0	0	0	0	0	8	4	10	0	5	1	0	9	0
Fayoum (A)	0	0	0	0	0	0	0	0	0	0	1	0	0	—	—
Minya (A)	0	0	0	0	0	0	14	1	0	0	2	0	0	21	0
Assyout (A)	0	0	0	0	0	0	1	0	0	0	2	0	0	28	0
Luxor (A)	0	0	0	0	0	0	0	0	12	0	2	0	0	26	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	3	0	0	25	0
Siwa	0	0	0	0	0	0	0	0	0	0	2	0	0	24	0
Bahariya	0	0	0	0	0	0	1	0	0	0	2	0	0	22	0
Farafra	0	0	0	0	0	0	0	0	2	0	2	1	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	2	0	0	26	0
Kharga	0	0	0	0	0	0	0	0	1	0	1	0	0	29	0
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	1	0	0	25	0
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0

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

NOVEMBER — 1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing Within 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	10	0	1—10	21	52	88	35	37	30	9	4	17	69	92	73	527
				11—27	1	0	7	6	1	0	0	4	8	46	82	19	174
				28—47	0	0	0	0	0	0	0	0	0	2	0	0	2
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**22**	**52**	**95**	**41**	**38**	**30**	**9**	**8**	**25**	**117**	**174**	**93**	**703**
Mersa Matruh . . (A)	43	0	0	1—10	61	76	51	47	30	24	16	67	72	19	14	56	536
				11—27	0	1	5	4	2	1	8	11	47	26	13	17	135
				28—47	0	0	0	0	0	0	0	0	4	2	0	0	6
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**64**	**77**	**56**	**51**	**32**	**25**	**24**	**78**	**123**	**47**	**27**	**73**	**677**
Alexandria . . . (A)	13	0	0	1—10	99	163	51	19	7	10	10	28	14	10	48	97	556
				11—27	16	12	5	2	0	0	2	19	38	20	24	10	148
				28—47	0	0	0	0	0	0	0	0	3	0	0	0	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**115**	**175**	**56**	**21**	**7**	**10**	**12**	**47**	**55**	**30**	**72**	**107**	**707**
Tanta . . . . . (A)	16	0	0	1—10	97	112	50	9	6	4	8	23	59	41	82	109	600
				11—27	15	10	4	7	0	0	1	1	25	35	2	4	104
				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**	**122**	**54**	**16**	**6**	**4**	**9**	**24**	**84**	**76**	**84**	**113**	**704**
Cairo . . . . . (A)	67	3	0	1—10	58	98	49	13	11	20	26	32	27	44	48	55	481
				11—27	25	28	8	0	0	4	25	52	21	2	2	2	169
				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	**83**	**126**	**57**	**13**	**11**	**24**	**51**	**84**	**48**	**46**	**50**	**57**	**650**
Fayoum	10	17	2	1—10	237	150	18	7	8	6	18	64	84	18	22	25	657
				11—27	1	7	0	0	0	0	0	1	21	4	0	0	34
				28—54	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	**238**	**157**	**18**	**7**	**8**	**6**	**18**	**65**	**105**	**22**	**22**	**25**	**691**
Minya . . . . . (A)	27	4	0	1—10	264	31	7	0	5	42	26	16	15	22	15	92	535
				11—27	98	5	0	0	0	8	2	1	3	20	11	6	154
				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	**362**	**36**	**7**	**0**	**5**	**50**	**28**	**17**	**18**	**42**	**26**	**98**	**689**
Asyout . . . . (A)	0	0	0	1—10	120	17	9	13	9	21	24	32	48	31	99	142	565
				11—27	77	17	0	0	0	1	2	2	2	9	13	32	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	**197**	**34**	**9**	**13**	**9**	**22**	**26**	**34**	**50**	**40**	**112**	**174**	**720**

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

NOVEMBER — 1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing within 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)	78	0	0	1—10	124	71	47	36	22	27	63	67	38	33	38	73	639
				11—27	0	0	1	2	0	0	0	0	0	0	0	0	3
				28—47		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**	**71**	**48**	**38**	**22**	**27**	**63**	**67**	**38**	**33**	**38**	**73**	**642**
Aswan . . . . (A)	0	0	0	1—10	353	75	24	11	6	7	2	7	3	3	18	103	612
				11—27	71	12	1	1	0	0	0	0	0	0	0	23	108
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**424**	**87**	**25**	**12**	**6**	**7**	**2**	**7**	**3**	**3**	**18**	**126**	**720**
Siwa	100	1	0	1—10	20	34	47	81	70	43	13	13	27	96	63	39	546
				11—27	1	1	5	0	4	4	1	0	1	24	27	5	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	**21**	**35**	**52**	**81**	**74**	**47**	**14**	**13**	**28**	**120**	**90**	**44**	**619**
Dakhla	25	8	0	1—10	56	28	23	14	11	19	25	28	58	85	132	148	527
				11—27	18	18	0	0	0	0	0	1	0	1	11	11	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	**74**	**46**	**23**	**14**	**11**	**19**	**25**	**29**	**58**	**86**	**143**	**159**	**687**
Kharga	5	1	1	1—10	266	95	22	7	7	16	8	3	10	10	36	97	577
				11—27	97	29	0	0	0	0	0	0	0	0	3	7	136
				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	**363**	**124**	**22**	**7**	**7**	**16**	**8**	**3**	**10**	**10**	**39**	**104**	**713**
Hurghada	3	1	0	1—10	25	29	20	2	10	7	6	6	6	29	189	44	373
				11—27	37	1	1	0	0	1	0	0	0	14	155	134	343
				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**	**30**	**21**	**2**	**10**	**8**	**6**	**6**	**6**	**43**	**344**	**178**	**716**
Quseir	1	0	0	1—10	98	23	8	6	3	0	6	6	11	187	188	36	572
				11—27	58	0	0	0	0	0	0	0	0	8	17	64	147
				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**	**23**	**8**	**6**	**3**	**0**	**6**	**6**	**11**	**195**	**205**	**100**	**719**

UPPER AIR CLIMATOLOGICAL DATA

Table B 1.—MONTHLY MEAN AND MONTHLY ABSOLUTE HIGHEST AND LOWEST VALUES OF ALTITUDE, AIR TEMPERATURE AND DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

NOVEMBER – 1976

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	1014m.b.*	1020m.b.*	10 4m.b.*	30	16.5	21.0	10.6	30	10 9
	1000	30	148	190	62	30	17.0	21.2	10.4	30	11.8
	850	30	1519	1562	1411	30	9 7	18.4	1.5	30	— 0.4
	700	30	3076	3190	2963	30	2.2	8.7	— 7.5	30	—14.6
	600	30	4340	4447	4157	30	— 5 3	2.7	—15.9	30	—21.9
	500	30	5744	5886	5515	30	—15.2	— 9.3	—26.8	30	—28.1
	400	30	7391	7561	7117	30	—27 7	—22.0	—36.5	30	—38.5
	300	30	9406	9615	90 3	30	—41.7	—37.9	—47.2	30	—52.2
	250	30	10618	10838	10257	30	—50.3	—47.2	—54.3	30	—60.5
	200	30	12051	12270	11693	30	—57.6	—52.1	—61.7	25	—66.5
	150	30	13842	14037	13515	30	—63.1	—55.9	—73.0	5	—67.0
	100	28	16320	16542	16049	28	—65.5	—60.0	—74.0	—	—
	70	24	18503	18769	18264	24	—63.4	—58.1	—68.7	—	—
	60	21	19481	19760	19250	21	—62.4	—57.9	—68.7	—	—
	50	20	20589	20896	20381	20	—61.3	—53.4	—67.1	—	—
	40	18	22046	22380	21760	18	—59.5	—55.4	—63.2	—	—
	30	14	23841	24131	23597	14	—57.4	—51.0	—64.8	—	—
	20	6	26348	26488	26180	6	— 3.1	—46.9	—57.2	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	30	1000mb.*	1003mb.*	989mb.*	30	17.2	24.4	10.2	30	9.6
	1000	29	133	184	045	13	16.9	23.9	11.1	13	11.8
	850	29	1516	1583	1411	29	11.2	19.5	0.8	29	—00.7
	700	29	3114	3187	2989	29	03.5	10.6	—06.2	29	—13.7
	600	29	4350	4450	4202	29	—04.2	02.0	—11.6	29	—19.2
	500	28	5770	5898	5601	27	—13.8	—08.7	—20.1	27	—27.6
	400	28	7422	7587	7221	28	—25.2	—11.5	—30.6	28	—37.0
	300	28	9155	9649	9212	28	—33.6	—36.9	—44.3	27	—49.3
	250	28	10574	10889	10430	27	—48.4	—43.4	—51.4	27	—57.5
	200	28	12119	12343	11885	28	—56.0	—50.1	—59.8	27	—64.6
	150	27	13921	14129	13708	26	—61.8	—55.5	—75.0	5	—66.2
	100	18	16390	16560	16195	18	—66.6	—61.9	—72.6	—	—
	70	11	18514	18682	18325	11	—66.7	—63.1	—74.1	—	—
	60	8	19498	19660	19360	8	—64.8	—62.3	—71.1	—	—
	50	8	20580	20752	20370	8	—64.0	—61.2	—70.0	—	—
	40	3	22013	22030	21950	3	—61.7	—60.8	—64.3	—	—
	30	3	23719	23789	23542	3	—60.0	—58.6	—62.9	—	—
	20	1	26249	—	—	1	—59.6	—	—	—	—
	10	1	30624	—	—	1	—56.1	—	—	—	—
Aswan 0000 U.T.	Surface	30	992mb.*	998mb.*	989mb.*	30	19.0	26.2	10.4	30	5.2
	1000	30	128	176	96	—	—	—	—	—	—
	850	30	1524	1554	1501	30	15.4	20.6	4.7	30	0 3
	700	30	3141	3183	3112	30	5.4	10.5	2.4	30	— 9.6
	600	30	4387	4434	4346	30	— 1.5	2.6	— 7.5	30	—19.1
	500	30	5814	5878	5718	30	—10.5	— 7.2	—14.0	30	—26.7
	400	30	7498	7569	7408	30	—22.4	—19.5	—26.5	30	—36.1
	300	30	9545	9629	9141	30	—38.3	—35.3	—41.6	30	—49.1
	250	30	10774	10803	10661	30	—47.9	—44.5	—51.8	30	—57.0
	200	30	12226	12413	12093	30	—57.0	—53.7	—59.2	29	—65.1
	150	30	14004	14094	13868	30	—64.7	—58.3	—70.4	—	—
	100	30	16435	16558	16321	30	—72.8	—69.5	—78.0	—	—
	70	27	18535	18655	18444	27	—70.7	—66.6	—78.2	—	—
	60	18	19502	19660	19410	18	—67.8	—61.2	—75.4	—	—
	50	18	20563	20685	20471	18	—64.1	—59.7	—69.3	—	—
	40	10	22034	22130	21920	10	—59.9	—57.6	—61.8	—	—
	30	10	23750	23859	23650	10	—56.3	—55.0	—60.1	—	
	20	4	26501	26750	26392	4	—49.4	—42.2	—52.7	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

* — pressure corrected to the elevation of the radiosonde station.

UPPER AIR CLIMATOLOGICAL DATA

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

NOVEMBER — 1976

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm.)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Marsa Matruh (A) 1200 U.T.	Surface	30	*1014mb.	*1019mb.	*1005mb.	30	21.0	24.4	15.0	30	11.9
	1000	30	144	192	74	30	19.8	23.8	14.4	30	10.4
	850	30	1547	1556	1447	30	10.0	17.6	1.4	30	— 3.3
	700	30	3109	3179	3004	30	21.0	9.4	— 6.7	30	—15.6
	600	30	4330	4414	4194	30	— 5.6	1.1	—12.9	30	—23.8
	500	30	5742	5876	5566	30	—15.1	— 8.7	—22.5	30	—31.2
	400	30	7341	7562	7177	30	—27.0	—21.0	—33.6	30	—41.8
	300	30	9400	9614	9151	30	—42.1	—37.7	—48.2	30	—53.7
	250	28	10619	10894	10321	28	—50.4	—46.9	—53.7	28	—60.5
	200	27	12064	12276	11783	27	—57.3	—50.4	—60.5	23	—68.7
	150	27	13870	14016	13655	27	—62.1	—53.7	—73.9	5	—69.0
	100	24	16353	16504	16215	24	—65.2	—59.8	—70.9	—	—
	70	17	18553	18663	18449	17	—62.6	—58.7	—67.5	—	—
	60	12	19562	19700	19500	12	—59.8	—51.3	—63.5	—	—
	50	12	20667	20802	20585	12	—58.8	—49.5	—62.5	—	—
	40	6	22172	22260	22120	6	—56.1	—47.5	—61.3	—	—
	30	6	23917	23994	23881	6	—54.6	—45.0	—59.9	—	—
	20	4	26489	26538	26464	4	—53.3	—49.0	—59.1	—	—
	10	1	30839	—	—	1	—58.5	—	—	—	—
Helwan (A) 1200 U.T.	Surface	30	*999mb.	*1005mb.	*994mb.	30	24.8	34.8	16.2	30	08.8
	1000	30	133	184	089	8	22.3	26.4	17.0	8	10.9
	850	30	1525	1576	1434	29	12.3	23.8	01.0	29	—00.7
	700	30	3132	3234	3020	30	04.5	13.0	—06.8	30	—15.0
	600	30	4373	4502	4183	30	—02.5	01.8	—10.4	30	—21.4
	500	30	5795	5976	5567	30	—12.0	—02.4	—18.5	30	—28.2
	400	29	7470	7708	7202	29	—23.6	—15.7	—29.7	29	—37.3
	300	28	9519	9819	9212	28	—37.8	—30.6	—43.9	28	—49.9
	250	28	10739	11001	10425	28	—46.0	—41.5	—51.7	28	—57.6
	200	27	12211	12583	11887	27	—53.0	—47.3	—58.0	27	—63.6
	150	24	14049	14419	13733	24	—58.8	—53.1	—68.1	15	—66.4
	100	20	16555	16898	16353	20	—62.5	—58.0	—68.1	3	—68.6
	70	15	18739	19004	18502	15	—60.3	—56.5	—64.5	—	—
	60	11	19751	20100	19510	11	—58.0	—50.1	—64.3	—	—
	50	11	20873	21195	20623	11	—55.6	—47.0	—62.2	—	—
	40	7	22371	22530	22160	7	—51.3	—43.3	—54.5	—	—
	30	6	24184	24409	23931	6	—47.1	—38.9	—52.0	—	—
	20	4	26912	27245	26643	4	—38.5	—30.5	—45.5	—	—
	10	1	31977	—	—	1	—34.8	—	—	—	—
Aswan (A) 1200 U.T.	Surface	29	*992mb.	*998mb.	*988mb.	29	30.3	37.0	19.0	29	07.0
	1000	29	118	176	083	—	—	—	—	—	—
	850	29	1535	1559	1516	29	17.8	23.8	07.2	29	—02.0
	700	29	3126	3202	3123	29	07.6	11.8	02.9	29	—13.8
	600	29	4422	4470	4371	29	00.5	04.3	05.7	29	—20.5
	500	29	5802	5921	5802	29	—08.6	—05.0	—11.2	29	—28.3
	400	28	7554	7621	7474	28	—20.9	—18.0	—25.9	28	—38.6
	300	27	9517	9682	9523	27	—36.8	—34.7	—40.2	27	—51.8
	250	27	10852	10932	10809	27	—46.3	—44.5	—48.7	27	—59.7
	200	27	12303	12396	12181	27	—55.6	—52.0	—58.0	27	—66.9
	150	27	14103	14247	13986	27	—63.5	—57.7	—67.8	1	—68.0
	100	26	16553	16741	16447	26	—70.4	—66.1	—76.2	—	—
	70	24	18673	18855	18555	24	—69.5	—64.0	—75.4	—	—
	60	20	19728	19700	19590	20	—67.0	—62.0	—76.4	—	—
	50	20	20723	20929	20602	20	—61.0	—50.9	—65.6	—	—
	40	10	22290	22430	22110	10	—57.6	—52.9	—59.1	—	—
	30	10	23975	24189	23527	10	—53.2	—51.0	—55.0	—	—
	20	7	26664	26869	26553	7	—46.8	—43.8	—48.9	—	—
	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.

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

NOVEMBER — 1976

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	3353 (30)	683 (30)	—13.6 (30)	4550	594	—18.1	1680	821	—3.5	13196 (29)	174 (29)	—62.6 (29)	16290	100	—68.4	10080	268	—52.1	6640	444	240	69
Helwan	3599 (29)	663 (29)	—15.3 (29)	4730	581	—20.0	1650	838	—0.4	14016 (15)	155 (15)	—62.6 (15)	16800	95	—67.7	11710	212	—55.1	14370	142	280	150
Aswan	4104 (30)	622 (30)	—16.5 (30)	4800	570	—14.6	3400	668	—7.4	16080 (23)	106 (23)	—73.3 (23)	17940	79	—77.0	13750	111	—70.9	11175	232	240	125
1200 U.T.	(N)	(N)	(N)							(N)	(N)	(N)										
M. Matruh	3309 (30)	685 (30)	—15.6 (30)	4000	590	—20.2	1740	830	—4.4	13091 (25)	176 (25)	—63.0 (25)	16210	103	—69.2	10140	258	—51.1	8500	340	250	95
Helwan	3791 (30)	651 (30)	—15.8 (30)	5500	522	—21.4	1760	821	0.0	12979 (19)	181 (19)	—57.8 (19)	15000	137	—64.8	10390	252	—49.0	14180	149	285	149
Aswan	4457 (29)	595 (29)	—20.4 (29)	5050	555	—22.7	3650	657	—18.6	16243 (23)	108 (23)	—70.9 (23)	17940	80	73.9	11760	215	—56.5	9600	300	250	120

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 — NOVEMBER 1976

	Pressure surface (millibar)	Wind within 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	8	3	5	1	7	3	7	2	4	1	7	2	4	5	8	6	13	1	5	0	—	1	20	3	30	8
	1000	6	12	1	5	2	14	4	11	4	13	1	9	0	—	0	—	6	20	4	12	1	8	1	31	0	30	14
	850	2	8	1	13	3	9	0	—	3	10	1	7	2	12	1	12	6	21	2	24	7	13	2	9	0	30	14
	700	1	10	1	28	2	10	1	3	1	11	0	—	1	7	3	21	8	27	6	13	4	18	2	14	0	30	18
	600	0	—	1	10	1	11	0	—	0	—	0	—	4	15	4	21	14	24	3	18	2	27	0	—	0	29	21
	500	1	25	0	—	0	—	0	—	0	—	0	—	2	22	5	19	9	35	5	23	3	12	0	—	0	25	25
	400	0	—	0	—	0	—	0	—	0	—	0	—	1	26	3	23	6	32	4	17	0	—	2	16	0	16	24
	300	0	—	0	—	0	—	0	—	0	—	0	—	3	27	0	—	3	25	3	23	1	24	1	33	0	11	27
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	15	3	29	0	—	1	18	0	6	23
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	1	24	0	—	1	41	0	3	30
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	6	8	5	8	5	9	0	—	1	10	0	—	1	18	0	—	3	21	3	11	2	20	4	10	0	30	11
	1000	4	13	6	9	0	—	1	12	1	5	1	22	0	—	0	—	1	20	6	27	4	17	5	13	0	29	16
	850	3	12	1	13	3	8	1	9	0	—	1	6	0	—	4	17	5	21	6	16	4	25	1	15	0	29	15
	700	0	—	0	—	0	—	2	8	1	8	1	20	0	—	4	20	7	19	8	18	5	10	1	30	0	29	17
	600	0	—	0	—	0	—	0	—	1	6	1	20	2	30	4	16	10	25	6	13	3	24	0	—	1	28	20
	500	1	12	0	—	0	—	0	—	0	—	2	20	5	18	3	19	8	34	6	29	1	22	0	—	0	26	26
	400	0	—	0	—	0	—	0	—	0	—	0	—	3	21	4	21	3	33	4	28	2	40	1	13	0	17	26
	300	0	—	0	—	0	—	0	—	0	—	0	—	2	26	0	—	6	30	6	34	1	19	0	—	0	15	30
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	31	4	3[illegible]	3	38	3	26	0	—	0	11	33
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	47	1	73	4	46	0	—	0	—	0	6	51
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	30	2	58	0	—	0	—	0	—	0	3	49
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0	1	20
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N= The number of cases the wind has been observed within 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 (A) — NOVEMBR 1976

Time	Pressure Surface (Millibar.)	Wind within ranges of direction (000—260°)																								Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar 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	3	07	11	08	2	15	2	05	4	06	1	09	0	—	2	10	0	—	0	—	0	—	3	06	2	30	7
	1000	1	12	6	10	1	15	0	—	0	—	0	—	0	—	1	07	0	—	0	—	0	—	4	10	0	13	10
	850	0	—	5	15	2	09	1	12	1	10	2	12	2	06	3	18	4	22	2	12	3	09	4	14	0	29	14
	700	1	05	1	14	1	07	2	04	1	05	2	11	3	17	3	08	4	30	6	22	2	14	3	14	0	29	16
	600	1	67	1	04	1	10	0	—	2	07	1	03	2	12	3	21	6	23	4	29	5	17	2	10	0	28	17
	500	2	10	2	13	0	—	0	—	0	—	3	09	2	16	1	17	6	26	7	45	5	19	0	—	0	28	25
	400	2	21	0	—	1	14	0	—	1	12	1	25	1	11	1	19	6	51	11	39	1	10	0	—	0	25	35
	300	0	—	1	28	1	10	0	—	0	—	0	—	2	28	0	—	6	42	6	32	2	52	2	51	0	20	37
	250	0	—	2	18	0	—	0	—	0	—	1	24	1	29	1	31	5	40	6	60	1	15	2	60	0	19	43
	200	1	35	1	23	0	—	0	—	0	—	0	—	0	—	1	36	5	64	3	96	2	87	1	105	0	14	70
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	37	1	54	0	—	1	45	0	3	45
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	0	—	0	—	0	—	0	1	40
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	3	08	9	12	0	—	0	—	1	03	0	—	0	—	6	08	3	09	0	—	3	07	5	08	0	30	9
	1000	1	10	4	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	—	1	13	2	08	0	8	10
	850	3	11	3	15	1	11	2	08	1	10	0	—	1	14	1	25	6	12	3	1[illegible]	4	08	5	11	0	30	12
	700	2	12	1	05	1	05	3	09	0	—	2	08	2	20	0	—	8	24	5	22	3	21	3	07	0	30	17
	600	0	—	1	10	1	10	0	—	1	09	1	11	1	10	5	17	7	38	6	2[illegible]	3	09	4	14	0	30	21
	500	1	17	0	—	3	13	0	—	0	—	2	12	3	18	0	—	10	29	4	45	3	21	2	13	0	28	25
	400	1	37	1	22	0	—	0	—	0	—	2	22	2	23	1	16	8	41	7	68	4	25	1	24	0	27	40
	300	1	27	6	—	0	—	0	—	0	—	2	23	1	24	0	—	6	58	6	35	2	26	2	26	0	20	39
	250	0	—	1	29	0	—	0	—	1	17	1	38	0	—	2	74	4	57	5	55	2	32	1	63	0	17	50
	200	0	—	0	—	0	—	0	—	1	55	0	—	0	—	1	16	1	38	5	38	2	72	0	—	0	10	44
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	30	2	51	3	81	1	36	0	8	56
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	78	—	—	1	59	0	—	0	3	72
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

T.N.=The total number of cases the wind has been beerved during the month

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

ASWAN NOVEMBER 1976

Time	Pressure Surface (Millibar.)	Wind within 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	16	12	4	12	1	12	5	8	1	11	0	—	0	—	0	—	1	4	0	—	0	—	2	13	0	30	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	1	8	4	12	9	13	5	16	1	14	0	—	0	—	2	6	0	—	1	12	3	11	4	9	0	30	12
	700	1	16	2	14	3	15	6	14	1	17	0	—	1	16	1	15	5	24	2	16	6	21	2	13	0	30	18
	600	0	—	1	13	0	—	3	12	2	15	1	10	0	—	0	—	5	24	6	30	9	18	2	16	0	29	20
	500	0	—	0	—	0	—	2	21	2	24	0	—	0	—	0	—	2	60	11	23	7	34	5	14	0	29	29
	400	0	—	0	—	1	20	2	18	0	—	0	—	0	—	0	—	4	84	12	46	8	49	1	27	0	28	40
	300	0	—	0	—	1	13	1	12	0	—	0	—	0	—	0	—	2	44	13	57	10	59	0	—	0	27	53
	250	0	—	1	10	0	—	0	—	0	—	1	7	0	—	0	—	3	69	11	65	10	68	1	82	0	27	63
	200	2	10	0	—	1	15	0	—	0	—	0	—	0	—	0	—	1	120	17	79	5	78	1	60	0	27	72
	150	0	—	0	—	0	—	1	46	0	—	0	—	0	—	0	—	1	87	16	58	7	60	1	14	0	26	58
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	23	6	39	12	38	2	52	0	—	0	31	39
	70	1	15	0	—	0	—	0	—	1	23	1	22	0	—	1	8	0	—	4	13	2	21	1	10	0	11	16
	60	0	—	0	—	2	14	1	15	2	14	1	10	2	19	0	—	1	13	0	—	0	—	0	—	0	9	15
	50	0	—	0	—	2	11	1	17	2	16	2	12	1	11	0	—	0	—	0	—	1	25	0	—	0	9	15
	40	0	—	0	—	1	5	0	—	0	—	0	—	0	—	1	12	2	19	0	—	1	23	1	9	0	6	15
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	11	0	—	0	—	0	—	0	2	11
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	1	10
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	15	10	3	08	0	—	2	09	0	—	2	09	0	—	1	08	0	—	0	—	0	—	6	10	0	29	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	2	04	3	09	6	11	5	11	1	10	0	—	0	—	1	04	0	—	3	09	3	13	5	11	0	29	10
	700	1	11	1	10	1	16	5	15	3	14	1	08	0	—	0	—	3	11	6	23	6	12	2	12	0	29	15
	600	0	—	1	07	1	18	3	14	3	13	0	—	0	—	0	—	2	38	7	28	10	19	2	06	0	29	20
	500	0	—	1	16	0	—	3	27	0	—	1	12	0	—	0	—	2	15	12	41	8	24	1	13	0	28	30
	400	0	—	0	—	2	22	1	23	1	28	0	—	0	—	0	—	2	53	14	46	7	36	1	31	0	28	40
	300	1	17	0	—	0	—	2	22	0	—	1	08	0	—	0	—	3	91	12	57	8	54	0	—	0	27	54
	250	1	10	1	08	0	—	2	20	0	—	0	—	1	77	0	—	3	77	13	62	6	73	0	—	0	27	60
	200	0	—	1	12	0	—	0	—	0	—	0	—	0	—	0	—	1	91	12	56	9	56	1	17	0	24	62
	150	0	—	1	22	0	—	0	—	0	—	0	—	0	—	0	—	5	58	12	57	2	56	1	26	0	21	57
	100	0	—	0	—	0	—	0	—	0	—	0	—	1	22	0	—	4	38	13	32	2	43	1	33	0	21	33
	70	0	—	0	—	1	13	0	—	1	22	0	—	2	14	1	30	1	15	6	10	0	—	3	13	0	15	12
	60	1	19	0	—	1	10	3	10	0	—	0	—	2	12	0	—	1	10	2	08	0	—	1	05	0	11	10
	50	1	05	1	07	0	—	2	11	0	—	1	10	1	12	1	09	0	—	0	—	1	10	0	—	0	8	9
	40	0	—	0	—	0	—	0	—	2	13	0	—	2	09	0	—	0	—	1	09	0	—	0	—	0	5	11
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	2	10	1	10	0	—	0	—	0	4	10
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	09	0	—	0	—	0	—	0	2	9
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—

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

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

MONTHLY REVIEW OF AGROMETEOROLOGICAL STATIONS

MERSA MATRUH—NOVEMBER 1976

The mean daily air temperature and relative humidity were nearly the same as normal. The total monthly rainfall was only 5.1 mm. against 24.2 mm for normal.

Weather was mild most days of the month. A cold wave was experienced from the 25 th till the 30 th yielding both the lowest maximum air temperature (16.8°C) and the lowest minimum (9.0°C) on the 27 th.

The mean daily actual sunshine duration was lower than normal by 1.4 hour. The mean daily wind speed at 1.5 met. height was the same as the value of November 1975.

The highest maximum soil temperatures were lower than the corresponding values of November 1975 at all depths except those at 10 & 20 cm. depths which were higher ; the departures varied between 0.2° & 1.0°C. The lowest minimum soil temperatures were lower than the corresponding values of November 1975 at all depths ; the departures varied between 2.3°C (at 20 cm.) & 0.5°C (at 100 cm.).

TAHRIR—NOVEMBER 1976

The mean daily air temperature was the same as normal and the mean daily relative humidity was below normal. No rain was reported except 0.2 mm. on the 27 th, while the normal monthly rainfall is 3.9 mm.

Weather was characterized by a pronounced heat wave from the 1 st till the 9 th, a warm spell on the 19 th & 20 th and a light cold wave from the 24 th till the end of the month. The heat wave yielded the highest maximum air temperature (37.0 °C) on the 2 nd. The cold wave yielded the lowest maximum air temperature (18.4°C) on the 27 th. In the rest of the month weather was mild in general.

The mean daily actual sunshine duration was lower than normal by 0.7 hour. The mean daily wind speed at 1.5 met. height and pan evaporation were nearly the same as normal.

The highest maximum soil temperatures were higher than average at all depths with departures between 1.6°C (at 2 cm.) & 0.2°C (at 100 cm.). The lowest minimum soil temperatures were lower than average at 2 & 5 cm. depths by 0.7°C & 0.2°C respectively ; and higher than average at other depths with departures between 0.8° & 1.1°C.

BAHTIM—NOVEMBER 1976

The mean daily air temperature was above average and the mean daily relative humidity was slightly below average.

The month was characterized by a pronounced heat wave from the 1 st till the 6 th, a warm spell on the 19 th & 20 th and a cold wave from the 24 th till the end of the month. The heat wave yielded the highest maximum air temperature (35.5 °C) on the 3 rd. The cold wave yielded both the lowest maximum air temperature (17.8°C) on the 27 th and the lowest minimum (6.0°C) on the 30 th. In the rest of the month weather was generally mild.

The mean daily actual sunshine duration was hower than average by 0.4 hour. The mean daily wind speed at 1.5 met. height and pan evaporation were slightly higher than average.

The highest maximum soil temperatures were higher than average at depths between 2 & 10 cm. with departures between 3.6°C (at 2 cm.) & 0.4°C (at 10 cm.) and lower than average at 20 cm. by 0.9°C. The lowest minimum soil temperatures were higher than average at depths between 2 & 10 cm. with departures between 1.6°C (at 2 cm.) & 0.7°C (at 5 cm.) and lower than average at 20 cm. by 0.4°C.

KHARGA—NOVEMBER 1976

The mean daily air temperature was higher than normal and the mean daily relative humidity was lower than normal.

Weather was characterized by two heat waves in the periods(1*st* - 11*th*) & (18*th* - 21*st*) and a light cold wave in the period (24*th* - 30*th*). The first heat wave was prolonged and yielded both the highest maximum air temperature (38.1°C) on the 3*rd* and the highest minimum (24.2°C) on the 10*th*. The cold wave yielded both the lowest maximum (19.6°C) on the 28*th* and the lowest minimum (7.0°C) on the 23*rd* & 26*th*. In the rest of the month, weather was mild.

The mean daily actual sunshine duration, wind speed at 1.5 met. height and pan evaporation were lower than normal by 0.5 hour, 0.9 met./sec. and 0.62 mm. respectively.

The highest maximum soil temperatures were higher than average at all depths with marked departures ranging between 10.4°C (at 2cm.) and 0.8°C (at 100 cm.). The lowest minimum soil temperatures were higher than average at 2,50, 100 cm. with departures between 0.3° & 1.2°C ; and lower than average at 5,10,20 cm. depths with departcres between 0.6° & 2.1°C.

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

NOVEMBER — 1976

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°
Mersa Matruh. . .	22. 6	13.8	18.0	16.7	19.9	24.0	24.0	24.0	23.8	18.2	7.8	0.4	0.0	0.0	0.0	0.0
Tahrir	27.1	12.3	18.4	15.5	21.5	24.0	24.0	24.0	23.6	17.4	7.9	2.6	0.6	0.0	0.0	0.0
Bahtim	25.2	11 9	18.1	15.2	21.0	24.0	24.0	24.0	23.5	16.8	7.2	1.9	0.5	0.0	0.0	0.0
Kharga	29.0	15.1	22.2	19.6	24.9	24.0	24.0	24.0	23.3	20 9	15.0	7.7	2.8	0.5	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.

NOV. — 1976

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 . . .	26.8	2	16.8	27	19.0	9	9.0	27	7.0	19,26	—	—
Tahrir	37.0	2	18.4	27	16.0	5	6.0	23	3.2	23	5.3	30
Bahtim	35.5	3	17.8	27	15.5	16	6.0	30	1.6	30	2·0	29
Kharga	38.1	3	19.6	28	24.2	10	7.0	2 ,26	3.4	26,28	—	—

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

NOV. — 1976

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 . .	232.7	208.0	316.8	66	67	54	23	22,26	10.5	11.0	17.7	5	3.4	22	5.2	—	5.1	2.8	26
Tahrir	—	228.6	318.8	72	71	45	18	2	11.1	10.5	18.0	4	4.5	23	4.2	4.57	0.2	0.2	27
Bahtim	—	231.1	319.7	72	70	45	14	2	10.6	10.3	17 7	5	5.3	1	4.4	4.76	0.0	0.0	—
Kharga	—	291.8	327.8	89	36	26	5	4	6.8	7.2	11.8	18	2.2	4	8 9	9.07	0.0	0.0	—

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

NOVEMBER — 1976

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	28.9	28.2	25.6	23.6	23.0	23.7	24.6	—	—	—	—	—	—	—	—	—
	L	9·4	9.9	12.1	14.7	18.0	21.5	23.6	—	—	—	—	—	—	—	—	—
Tahrir. . .	H	36.5	32.8	29.4	26.6	25.5	26.1	26.8	26.8	25.5	24.5	23.5	22.4	22.9	23.3	24.7	—
	L	10.2	11.1	13.6	16.8	19.8	22.5	24.8	25.7	11.2	11.9	13.2	15.6	7.5	19.7	22.4	—
Bahtim . .	H	40.6	34.4	28.0	25.5	25.7	26.3	25.8	24.4	27.2	23.8	22.0	20.6	21.9	23.1	23.5	—
	L	12.3	12.5	16.1	18.9	21.9	23.7	25.0	24.4	11.8	12.6	13.8	16.3	19.0	21.2	22.6	—
Kharga . .	H	49.6	44.2	38.1	33.0	30.3	31.0	30.7	30.1	—	—	—	—	—	—	—	—
	L	8.1	10.8	13.1	18.2	24.6	28.3	29.7	29.8	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

NOV. — 1976

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 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	3.3	2.6	4.1	23	11	7	7	2	1	0	42	26
Tahrir.	2.1	1.5	2.7	29	13	6	4	1	0	0	39	23
Bahtim..	2.1	1.6	2.7	18	8	3	1	0	0	0	68	24
Kharga.	2.4	1.8	3.0	25	16	3	1	0	0	0	28	11

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MONTHLY WEATHER REPORT

VOLUME 19 NUMBER 12

DECEMBER, 1976

N.O.A.A.
U. S. Dept. of Commerce

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 several 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 in 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 station.

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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GENERAL SUMMARY OF WEATHER CONDITIONS

DECEMBER 1976

Mild winter weather. Four cold waves, generally light and short. Deficient rainfall.

PRESSURE DISTRIBUTION

The atmospheric pressure was mainly influenced by:

— Six depressions (or troughs) through East Mediterranean during the first, second & fourth weeks (on the 1st, 6th, 10th, 13th, 24th & 28th).

— Ridging of the Siberian anticyclone to the Balkans & Central Mediterranean, and a trough from north Sudan to East Mediterranean during the third week.

The monthly atmospheric pressure over Egypt was generally below normal.

SURFACE WIND

The most prevailing winds were generally light to moderate: SW to NW in north and N ly to NW ly in south. Winds were fresh to strong during several days in scattered places.

TEMPERATURE

Weather was mild in north & warm in south day time, but generally cool night time.

The month was intervened by four cold waves generally light and short. The last one prevailed about the end of the month and was the most intense.

Maximum air temperatures mostly were slightly below normal in north and above normal in south.

The highest and lowest maximum air temperatures were respectively 33.0C at Kom-ombo on the 6*th* and 15.1°C at Balteam on the 29*th*.

Minimum air temperatures showed frequent departures below and above normal, generally slight to moderate.

The highest and lowest minimum air temperatures were respectively 19.0°C at Quseir on the 9*th* and -0.9°C at Dakhla on the 4*th*.

PRECIPITATION

This month was characterized by deficient rainfall.

Light to moderate rain was reported over the Mediterranean district mostly between the 25*th* & 31*st* and over Lower Egypt & Cairo on the 27*th* & 28*th*.

The monthly rainfall amounts were markedly below normal.

The maximum daily and monthly rainfall were 15.8 mm. at Balteam on the 31 *st* and 22.5 mm. at the same station.

OTHER WEATHER PHENOMENA

Early morning mist developed during several days over scattered places in Dalta, Cairo & north of Middle Egypt.

Rising sand was reported during some days over scattered places.

Chairman (M. S. ELDIN HARB)

Board of Directors.

Cairo, 8 November 1977

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

DECEMBER — 1976

STATION	Atmospheric Presure (mbs) M.S.L		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Pich. 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	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	1016.9	0.0	20.5	+0.1	11.8	+0.9	16.2	15.7	+0.5	11.8	+0.5	62	+5	—	—	—	7.7
Mersa Matrah. (A)	1017.5	—0.1	19.7	0.0	11.0	+1.0	15.4	15.0	+0.6	10.5	—0.7	53	—7	199.9	313.8	64	7.3
Alexandria . (A)	1017.8	+0.2	20.9	+0.4	10.6	—0.2	15.8	15.4	+0.2	12.0	—0.5	63	—4	217.5	315.3	69	3.3
Port Said . . (A)	1016.9	—0.3	19.7	—0.2	13.6	+0.3	16.6	16.3	—0.1	13.3	—0.2	70	—2	226.0	315.3	72	5.3
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1017.6	+0.3	21.3	—0.0	7.8	—0.3	14.6	13.8	—0.6	10.8	—0.7	69	+2	232.5	316.8	73	2.8
Cairo . . . . (A)	1018.0	0.0	20.9	+0.2	10.6	+0.2	15.8	15.4	+0.1	11.2	—0.1	58	—2	—	—	—	8.7
Fayoum	—	—	21.9	0.0	7.4	—0.9	14.6	14.1	—0.0	10.8	+0.2	63	+4	—	—	—	3.2
Minya . . . . (A)	1017.4	—0.9	21.9	0.0	5.7	—0.9	13.8	13.2	—0.3	9.8	—0.2	66	+5	254.6	323.0	79	4.4
Assyout . . . . (A)	1017.6	—0.4	21.4	—0.8	6.5	—2.1	14.0	13.6	—1.4	9.0	—1.0	54	+5	—	—	—	5.6
Luxor . . . . (A)	1015.6	—1.4	25.5	+0.7	8.1	+0.7	16.8	16.1	+1.0	11.3	+0.4	56	+4	—	—	—	3.7
Aswan . . . . (A)	1015.1	—1.5	26.3	+0.8	11.9	+2.0	19.1	18.6	+0.8	11.6	+1.1	40	+4	302.7	332.4	91	12.3
Siwa	1017.2	—0.9	20.8	—0.4	6.5	+0.5	13.6	13.1	—0.3	9.0	0.0	58	+4	266.5	320.0	83	6.6
Bahariya	1018.0	—0.5	21.5	—0.1	6.9	+0.3	14.2	13.9	—0.4	9.3	—0.1	53	+5	—	—	—	5.3
Farafra	1019.8	—0.3	21.7	0.0	6.2	+0.6	14.0	13.5	+0.3	8.9	+0.6	52	+6	—	—	—	5.4
Dakhla	1018.5	+0.5	23.2	0.0	5.4	—0.5	14.3	13.8	—0.1	8.7	+0.1	50	+8	—	—	—	7.2
Kharga	1016.6	—0.8	24.1	+0.2	9.0	+1.1	16.6	17.0	+1.4	10.1	+0.9	43	—2	296.8	329.2	90	6.5
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1015.3	—1.2	23.4	+0.8	12.9	+1.3	18.2	18.1	+0.9	13.0	+0.5	53	—1	276.2	325.8	85	8.8
Quseir	1014.8	—1.7	24.4	+0.4	16.4	+0.7	20.4	20.1	+0.4	14.8	+0.6	54	+3	—	—	—	6.6

Table A 2.—MAXIMUM & MINIMUM AIR TEMPERATURE

DECEMBER — 1976

	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	<-5
Sallum	26.6	4	17.2	14	2	0	0	0	0	—	—	15.8	6	8.6	29	5	0	0	0
Mersa Matruh (A)	24.8	4	17.0	28 29	0	0	0	0	0	—	—	16.2	7	8.5	16	8	0	0	0
Alexandria (A)	25.4	4	17.0	29	1	0	0	0	0	—	—	15.3	8	6.5	27	13	0	0	0
Port Said (A)	23.1	4	16.6	29	0	0	0	0	0	—	—	16.8	18	10.5	29	0	0	0	0
Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	26.8	5	15.5	29	2	0	0	0	0	—	—	11.4	7	5.4	31	29	0	0	0
Cairo (A)	27.9	5	17.5	29	2	0	0	0	0	—	—	14.1	7	7.8	18	8	0	0	0
Fayoum	25.4	5	18.3	29	1	0	0	0	0	—	—	12.6	8	4.0	3	25	5	0	0
Minya (A)	25.2	13	18.6	29	1	0	0	0	0	—	—	10.6	8	2.3	5	30	11	0	0
Assyout (A)	28.5	5	16.5	30	2	0	0	0	0	—	—	12.0	8	2.0	5	23	6	0	0
Luxor (A)	39.8	6	20.5	29,30	17	0	0	0	0	—	—	11.6	8	2.6	31	21	3	0	0
Aswan (A)	31.8	6	19.1	30	21	2	0	0	0	—	—	16.5	8	6.0	30	5	0	0	0
Siwa	25.6	4	17.0	24	2	0	0	0	0	—	—	14.7	7	1.2	31	25	7	0	0
Bahariya	27.0	5	17.9	29	3	0	0	0	0	—	—	12.8	24	2.9	30	23	7	0	0
Farafra	27.4	13	18.3	30	3	0	0	0	0	—	—	12.2	24	1.2	4,5	28	11	0	0
Dakhla	28.7	5	19.0	30	7	0	0	0	0	—	—	13.8	8	—0.9	4	29	12	1	0
Kharga	30.1	6	18.6	30	11	1	0	0	0	—	—	16.4	8	4.0	4	20	12	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	26.7	6	19.4	30	8	0	0	0	0	—	—	16.6	8	10.4	4	0	0	0	0
Quseir	28.3	6	21.1	30	9	0	0	0	0	—	—	19.0	8	13.5	30	0	0	0	0

Table A 3. — SKY COVER AND RAINFALL.

DECEMBER — 1976

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	3.7	3.9	3.9	2.4	3.5	2.4	—15.5	1.8	15	1	3	1	0	0	0	0
Mersa Matruh (A)	2.6	5.1	4.7	3.1	3.8	0.6	—28.9	0.3	28	0	3	0	0	0	0	0
Alexandria . . (A)	3.3	4.8	5.4	3.7	4.4	13.5	—39.3	5.2	31	1	5	4	1	0	0	0
Port Said . . (A)	1.7	2.9	3.5	2.0	2.4	9.5	— 8.1	7.8	31	4	4	2	1	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1.3	2.2	3.0	1.2	1.9	2.5	— 7.2	2.0	27	0	3	1	0	0	0	0
Cairo . . . . (A)	1.6	3.0	4.3	1.9	2.6	0.2	— 6.5	0.2	28	0	1	0	0	0	0	0
Fayoum	—	2.1	2.7	1.0	—	0.0	— 4.0	0.0	—	0	0	0	0	0	0	0
Minya . . . . (A)	1.1	2.0	2.5	1.3	1.7	0.0	— 0.6	0.0	—	0	0	0	0	0	0	0
Assyout . . . . (A)	0.2	1.7	1.0	0.8	0.9	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Louxor . . . . (A)	0.2	1.8	1.6	1.5	1.2	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Aswan . . . . (A)	0.2	1.3	1.5	0.4	0.9	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Siwa	3.5	2.0	2.5	1.6	2.1	0.0	— 2.1	0.0	—	0	0	0	0	0	0	0
Baharia	1.2	2.4	3.0	1.8	2.0	0.0	— 0.8	0.0	—	0	0	0	0	0	0	0
Farafra	—	1.0	2.1	1.5	—	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Dakhla	0.3	0.9	1.3	0.5	0.8	0.0	— 0.6	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	1.2	1.5	0.6	0.8	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.2	2.3	2.1	1.0	1.8	0.0	— 1.8	0.0	—	0	0	0	0	0	0	0
Quseir	0.1	2.0	1.8	0.7	1.1	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0

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

DECEMBER — 1976

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	8	1	0	4	1
Mersa Matruh (A)	3	0	0	0	0	0	0	0	3	0	7	2	0	6	2
Alexandira (A)	5	0	0	0	0	1	3	0	0	0	0	0	0	2	1
Port Said (A)	4	0	0	0	0	0	2	0	0	0	0	0	0	10	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	3	0	0	0	0	0	5	0	0	0	0	0	0	20	0
Cairo (A)	1	0	0	0	0	0	11	0	10	0	3	0	0	11	0
Fayoum	0	0	0	0	0	0	0	0	0	0	1	0	0	—	—
Minya (A)	0	0	0	0	0	0	26	0	1	0	3	0	0	18	0
Assyout (A)	0	0	0	0	0	0	3	2	0	0	1	0	0	27	0
Luxor (A)	0	0	0	0	0	0	0	0	24	0	1	0	0	21	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	1	0	0	25	0
Siwa	0	0	0	0	0	0	0	0	0	0	1	0	0	16	0
Bahariya	0	0	0	0	0	0	1	0	0	0	0	0	0	18	1
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	0	0	0	27	0
Kharga	0	0	0	0	0	0	0	0	0	0	1	0	0	25	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	1	0	0	20	1
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0

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

DECEMBER 1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing within the ranges of directions indicated												
					345 / 015	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 . . .	0	0	0	1—10	27	10	62	24	8	10	14	7	17	53	114	99	445
				11—27	0	1	7	1	1	2	1	6	40	141	84	5	289
				28—47	0	0	0	0	0	0	0	0	10	0	0	0	10
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**27**	**11**	**69**	**25**	**9**	**12**	**15**	**13**	**67**	**194**	**198**	**104**	**744**
Mersa Matruh .(A)	13	1	0	1—10	46	43	28	2	12	18	35	85	87	36	34	63	489
				11—27	0	17	7	0	4	1	44	52	55	19	31	10	240
				28—47	0	0	0	0	0	0	0	1	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**46**	**60**	**35**	**2**	**16**	**19**	**79**	**138**	**142**	**55**	**65**	**73**	**730**
Alexandria . . (A)	3	0	0	1—10	70	78	37	16	21	17	51	101	56	30	56	99	632
				11—27	5	18	5	1	0	0	0	18	34	14	11	3	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	**75**	**96**	**42**	**17**	**21**	**17**	**51**	**119**	**90**	**44**	**67**	**102**	**741**
Tanta	40	0	0	1—10	84	65	20	11	23	4	34	66	102	69	66	75	619
				11—27	13	12	10	0	1	0	2	2	5	19	11	10	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	**97**	**77**	**30**	**11**	**24**	**4**	**36**	**68**	**107**	**88**	**77**	**85**	**704**
Cairo . . . . (A)	89	2	0	1—10	82	40	34	41	25	49	83	50	29	31	24	47	535
				11—27	34	18	0	1	0	10	16	18	13	3	0	5	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	**116**	**58**	**34**	**42**	**25**	**59**	**99**	**68**	**42**	**34**	**24**	**52**	**653**
Fayoum	13	2	1	1—10	190	139	11	6	10	38	48	73	90	31	30	28	694
				11—27	2	29	2	0	0	0	0	1	0	0	0	0	34
				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**	**168**	**13**	**6**	**10**	**38**	**48**	**74**	**90**	**31**	**30**	**28**	**728**
Minya . . . . (A)	23	1	0	1—10	144	11	4	1	2	93	23	13	13	25	45	151	525
				11—27	165	4	0	0	0	1	1	1	0	1	7	15	195
				28—47	3	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	**309**	**15**	**4**	**1**	**2**	**94**	**24**	**14**	**13**	**26**	**52**	**166**	**720**
Asyout . . . .(A)	0	0	0	1—10	118	23	4	2	3	18	41	23	33	23	88	180	556
				11—27	119	8	0	0	0	0	0	2	1	0	6	52	188
				28—47	0	0	0	0	0	0	0	0	0	0	0	1	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**237**	**31**	**4**	**2**	**3**	**18**	**41**	**25**	**34**	**7**	**94**	**232**	**344**

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

DECEMBER — 1976

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing within the ranges of drections 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
Luxar . . . . (A)	52	0	0	1—10	90	75	46	44	24	34	81	105	41	51	39	62	692
				11—27	0	0	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	**90**	**75**	**46**	**44**	**24**	**34**	**81**	**105**	**41**	**51**	**39**	**62**	**692**
Aswan . . . . (A)	0	0	0	1—10	424	56	2	2	0	1	0	0	1	2	13	88	589
				11—27	133	5	0	0	0	0	0	0	0	0	3	14	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	**557**	**61**	**2**	**2**	**0**	**1**	**0**	**0**	**1**	**2**	**16**	**102**	**744**
Siwa	99	0	0	1—10	11	46	38	46	36	28	37	37	69	136	62	27	573
				11—27	1	15	9	1	0	7	0	9	2	7	14	5	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	**12**	**61**	**47**	**47**	**38**	**35**	**37**	**46**	**71**	**143**	**76**	**32**	**645**
Dakhla	53	9	0	1—10	60	32	16	13	13	11	27	25	40	81	158	140	619
				11—27	24	2	0	0	0	0	0	0	0	1	1	35	63
				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	**84**	**34**	**16**	**13**	**13**	**11**	**27**	**25**	**40**	**82**	**159**	**175**	**682**
Kharga	9	7	1	1—10	308	109	30	12	8	7	1	3	4	13	19	90	604
				11—27	102	13	0	0	0	0	0	0	0	0	0	8	123
				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	**410**	**122**	**30**	**12**	**8**	**7**	**1**	**3**	**4**	**13**	**19**	**98**	**727**
Hurghada	7	0	0	1—10	17	18	16	5	8	3	4	4	8	57	129	26	295
				11—27	24	0	0	0	0	0	0	0	0	53	154	211	442
				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**	**18**	**16**	**5**	**8**	**3**	**4**	**4**	**8**	**110**	**283**	**237**	**737**
Quseir	1	10	0	1—10	86	27	11	12	8	5	8	8	18	174	203	40	600
				11—27	39	0	0	0	0	0	0	0	0	1	24	69	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	**125**	**27**	**11**	**12**	**8**	**5**	**8**	**8**	**18**	**175**	**227**	**109**	**733**

UPPER AIR CLIMATOLOGICAL DATA

TABLE B 1—MONTHLY MEANS AND MONTHLY ABSOLUTE HIGHEST & LOWEST VALUES OF ALTITUDE, AIR TEMPERATURE & DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

DECEMBER — 1976

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
M. Matruh 0000 U.T.	Surface	31	1015m.b.*	1023m.b.*	1007m.b.*	31	13.7	18.0	10.0	31	6.6
	1000	31	153	229	86	31	13.5	17.0	10.0	30	5.9
	850	31	1569	1564	1427	31	6.3	15.7	0.1	30	— 3.6
	700	31	3080	3137	2980	31	— 0.2	5.0	— 5.5	30	—16.2
	600	31	4290	4378	4171	31	— 7.2	— 2.7	—13.7	30	—22.6
	500	31	5699	5800	5523	31	—16.4	—11.7	—25.5	30	—29.6
	400	31	7312	7468	7107	31	—28.0	—17.6	—39.8	30	—38.6
	300	31	9346	9497	9120	31	—43.0	—38.4	—46.3	30	—53.0
	250	31	10754	10712	10270	31	—50.9	—47.9	—54.5	29	—60.5
	200	29	12014	12141	11744	29	—59.1	—47.6	—63.6	10	—66.0
	150	26	13781	13890	13607	26	—62.6	—56.7	—67.3	4	—68.8
	100	24	16260	16363	16107	24	—67.1	—58.9	—72.2	—	—
	70	18	18141	18588	18357	18	—65.6	—57.2	—70.9	—	—
	60	16	19401	19490	19310	16	—63.7	—56.0	—67.3	—	—
	50	15	20487	20597	20410	15	—62.4	—59.0	—66.1	—	—
	40	12	21902	22039	21700	12	—59.7	—57.7	—63.1	—	—
	30	7	23785	23733	23524	7	—57.2	—55.8	—59.5	—	—
	20	6	26278	26343	26209	6	—53.8	—51.5	—57.7	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	31	1001m.b.*	1008m.b.*	993m.b.*	31	12.5	15.6	6.8	31	5.9
	1000	31	148	189	81	24	12.6	15.6	8.0	24	5.3
	850	31	1502	1549	1454	31	8.0	13.8	— 0.3	31	— 4.7
	700	31	3093	3176	3005	31	1.4	9.6	— 5.8	31	—13.3
	600	31	4318	4404	4210	30	— 5.8	— 2.0	—13.7	30	—19.3
	500	31	5725	5824	5583	31	—14.7	— 9.5	—23.0	31	—26.8
	400	30	7380	7519	7183	29	—26.1	—20.6	—34.0	29	—38.3
	300	30	9399	9579	9153	30	—41.4	—37.9	—46.6	30	—49.8
	250	30	10607	10808	10318	30	—50.1	—46.9	—54.1	30	—57.7
	200	30	12049	12254	11773	30	—53.0	—49.4	—62.5	29	—64.1
	150	30	13841	14071	13605	30	—62.9	—55.3	—70.0	6	—65.7
	100	22	16318	16550	16115	22	—66.6	—62.8	—72.0	—	—
	70	12	18385	18638	18296	12	—65.2	—63.0	—71.3	—	—
	60	9	19486	19700	19290	9	—65.1	—61.3	—69.9	—	—
	50	9	20552	20759	20394	9	—64.7	—59.7	—67.0	—	—
	40	2	22030	22110	21950	2	—62.9	—59.6	—66.2	—	—
	30	2	23802	23915	23688	2	—59.8	—57.4	—62.1	—	—
	20	1	26434	—	—	1	—55.8	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 U.T.	Surface	30	993m.b.*	997m.b.*	989m.b.*	30	14.5	19.0	08.2	30	03.3
	1000	30	139	168	090	—	—	—	—	—	—
	850	30	1517	1549	1425	30	14.2	19.9	05.8	30	—00.5
	700	27	3141	3185	3086	27	01.2	10.8	00.8	26	—11.6
	600	24	4393	4458	4321	24	—01.3	01.6	—05.6	22	—18.0
	500	22	5823	5885	5774	22	—10.7	—08.0	—15.0	22	—26.3
	400	21	7505	7582	7416	21	—23.1	—19.5	—27.2	21	—36.9
	300	21	9553	9648	9517	21	—38.0	—32.8	—41.4	21	—49.7
	250	21	10783	10917	10704	21	—43.0	—40.5	—50.4	21	—57.3
	200	21	12229	12359	12147	21	—56.6	—51.8	—60.8	17	—25.3
	150	21	14072	14210	13911	21	—65.0	—60.4	—69.7	—	—
	100	21	16455	16677	16321	21	—71.6	—67.6	—76.2	—	—
	70	15	18555	18757	18421	15	—72.1	—69.4	—75.4	—	—
	60	9	19522	19709	19350	9	—69.1	—65.2	—72.8	—	—
	50	9	20575	20735	20431	9	—65.4	—60.4	—73.3	—	—
	40	3	22013	22090	21970	3	—59.4	—57.2	—61.1	—	—
	30	3	23749	23803	23770	3	—55.6	—53.6	—56.8	—	—
	20	2	26374	26433	26316	2	—51.5	—50.0	—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 HIGHEST AND LOWEST VALUES OF ALTITUDE, AIR TEMPERATURE AND DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES

DECEMBER — 1976

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 . . .	31	* 1014m.b.	* 1022m.b.	* 1007m.b.	31	18.4	23.0	15.8	31	07.1
	1000 . . .	31	150	215	088	31	17.4	22.4	14.4	31	06.4
	850 . . .	31	1507	1557	1456	31	06.9	14.8	—00.7	31	—02.9
	700 . . .	31	3086	3153	3012	31	00.8	06.2	—06.4	31	—15.7
	600 . . .	31	4309	4389	4218	31	—06.1	—00.6	—13.1	31	—22.2
	500 . . .	31	5712	5829	5580	31	—15.3	—08.5	—22.8	31	—30.5
	400 . . .	31	7338	7517	7183	31	—27.0	—22.3	—34.3	31	—40.0
	300 . . .	30	9367	9558	9142	30	—42.1	—38.4	—47.7	30	—53.7
	250 . . .	30	10581	10778	10352	30	—50.3	—45.9	—54.2	30	—61.8
	200 . . .	30	12015	12218	11818	30	—58.1	—45.3	—61.7	19	—67.8
	150 . . .	30	13810	14038	13650	30	—61.6	—55.1	—67.6	5	—67.6
	100 . . .	26	16300	16478	16184	26	—63.3	—59.6	—71.6	—	—
	70 . . .	19	18483	18 08	18353	19	—64.8	—60.6	—71.1	—	—
	60 . . .	10	19432	19560	19390	10	—63.5	—59.7	—65.8	—	—
	50 . . .	9	20540	20651	20445	9	—62.4	—57.5	—64.0	—	—
	40 . . .	8	22041	22150	21940	8	—56.8	—49.7	—60.7	—	—
	30 . . .	8	23758	23839	23660	8	—52.4	—47.7	—57.0	—	—
	20 . . .	5	26379	26497	26255	5	—49.9	—47.8	—53.2	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface . . .	31	* 1000 m.b.	* 1006m.b.	* 995m.b.	31	19.6	24.2	15.8	31	06.6
	1000 . . .	31	140	188	095	17	19.2	22.0	16.6	17	06.6
	850 . . .	31	1511	1567	1459	31	09.3	18.8	02.6	31	—03.6
	700 . . .	31	3108	3185	3017	31	02.6	08.4	—03.9	31	—14.8
	600 . . .	31	4339	4436	4226	31	—04.0	—00.2	—10.2	30	—19.8
	500 . . .	31	5755	5869	5612	31	—13.0	—08.4	—19.6	30	—27.4
	400 . . .	31	7424	7560	7239	31	—24.8	—20.1	—29.0	31	—35.0
	300 . . .	31	9464	9620	9221	30	—38.9	—34.9	—43.9	30	—49.8
	250 . . .	30	10643	10877	10440	30	—47.7	—45.0	—52.2	30	—57.6
	200 . . .	30	12144	12331	11894	30	—55.5	—46.9	—60.5	26	—64.1
	150 . . .	28	13954	14158	13690	27	—58.9	—49.2	—66.3	13	—65.7
	100 . . .	28	16483	16713	16282	28	—61.7	—51.8	—71.0	4	—67.2
	70 . . .	21	18687	18893	18454	21	—60.3	—51.7	—65.8	—	—
	60 . . .	12	19675	19880	19450	12	—59.0	—52.9	—64.5	—	—
	50 . . .	12	20787	21002	20530	12	—55.9	—49.0	—65.2	—	—
	40 . . .	4	22410	22789	22260	4	—50.8	—41.0	—59.5	—	—
	30 . . .	3	24027	24301	23800	3	—58.4	—47.1	—68.0	—	—
	20 . . .	1	27031	—	—	1	—41.3	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface . . .	30	* 992m.b.	* 995m.b.	* 988m.b.	30	26.5	31.0	19.2	30	8.1
	1000 . . .	30	126	149	85	—	—	—	—	—	—
	850 . . .	30	1527	1567	1436	30	15.6	22.3	7.0	30	— 3.6
	700 . . .	29	3153	3203	3092	29	7.6	11.2	3.0	29	—14.4
	600 . . .	22	4419	4470	4365	22	0.3	3.3	— 3.6	22	—20.4
	500 . . .	22	5855	5913	5785	22	— 9.5	— 5.9	—16.0	22	—22.6
	400 . . .	22	7544	7622	7447	22	—21.5	—16.9	—25.2	22	—38.9
	300 . . .	20	9667	9703	9469	29	—37.0	—30.4	—39.9	20	—52.1
	250 . . .	19	10847	10971	10749	19	—46.3	—39.0	—49.2	19	—59.7
	200 . . .	18	12303	12451	12294	18	—55.4	—51.1	—59.6	18	—67.3
	150 . . .	17	14108	14273	13972	17	—54.2	—59.6	—67.2	—	—
	100 . . .	17	16549	16755	16410	17	—[illegible]	—66.6	—73.9	—	—
	70 . . .	15	18 72	[illegible]	18506	15	—71.0	—65.4	—78.8	—	—
	60 . . .	13	19639	[illegible]	19570	13	—[illegible]	—65.8	—70.0	—	—
	50 . . .	13	20709	2[illegible]836	20619	13	—63.2	—60.4	—66.1	—	—
	40 . . .	6	22167	22350	22040	6	—57.4	—56.0	—58.7	—	—
	30 . . .	5	23945	24095	23839	5	—52.0	—49.0	—53.8	—	—
	20 . . .	3	26820	26775	26513	3	—47.3	—44.5	—49.0	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	

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 AT THE FREEZING LEVEL AND THE TROPOPAUSE : THE HIGHEST WIND SPEED IN THE UPPER AIR

DECEMBER — 1976

	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)	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.	Mersa Matruh.	2794 (31)	724 (31)	—10.0 (29)	4040	623	—14.2	1500	849	—2.1	12488 (23)	186 (23)	—63.2 (23)	16233	100	—72.2	10230	252	—50.5	7181	411	275	89
	Helwan . . .	3256 (31)	692 (31)	—12.6 (31)	5000	555	—28.0	1430	854	—1.8	12693 (21)	182 (21)	—59.9 (21)	14580	136	—65.9	10740	239	—29.2	11560	220	240	150
	Aswan	21130 (25)	621 (25)	—16.4 (24)	4680	584	—15.0	3340	678	—11.8	15810 (14)	114 (14)	—70.8 (14)	17920	078	—70.0	13600	159	—75.3	11350	—	260	144
1200 .U.T.	Mersa Matruh.	2995 (31)	710 (31)	—13.9 (31)	4120	620	—22.0	1660	833	—2.4	12247 (28)	194 (28)	—61.0 (28)	16470	98	—65.2	8300	340	—43.6	13625	157	225	136
	Helwan . . .	3518 (31)	668 (31)	—15.0 (30)	4395	600	—10.2	1880	814	—2.5	12602 (27)	190 (27)	—58.7 (27)	15600	120	—62.8	9860	275	—60.0	15470	114	230	148
	Aswan	4465 (22)	597 (22)	—20.7 (22)	4950	564	—14.7	3900	63.7	—22.0	16398 (16)	106 (16)	—72.0 (16)	18821	70	—78.8	14170	148	—67.3	11650	—	260	141

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.

M. MATRUH (A) — DECEMBER 1976

Observation	Pressure Surface (Millibar)	Wind within specified ranges of direction (000—360)°																								Number of calm winds	Total number of observations (TN)	Mean speed (wind speed in 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	2	10	3	9	1	8	0	—	0	—	2	5	7	11	4	12	8	12	1	7	1	15	1	15	1	31	10
	1000	1	23	5	15	0	—	0	—	1	12	1	8	4	24	6	19	6	19	2	14	3	13	2	17	0	31	18
	850	2	15	1	10	1	3	1	15	0	—	0	—	2	17	3	21	8	21	3	19	6	14	4	13	0	31	17
	700	0	—	2	16	0	—	0	—	0	—	0	—	3	19	4	26	11	29	8	18	2	22	1	22	0	31	23
	600	0	—	0	—	0	—	0	—	0	—	0	—	1	26	3	37	14	33	8	25	4	22	0	—	0	30	30
	500	1	30	0	—	0	—	0	—	0	—	0	—	0	—	3	33	11	40	6	38	4	36	0	—	0	25	38
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	4	41	2	40	2	45	1	33	0	10	41
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	42	0	—	0	—	0	—	0	1	42
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	3	11	3	08	1	12	0	—	1	12	0	—	2	14	3	23	3	18	3	17	7	13	5	10	0	31	14
	1000	5	15	1	15	0	—	0	—	1	13	0	—	2	20	4	24	1	28	5	25	9	[illegible]	3	18	0	31	20
	850	3	09	1	16	1	13	0	—	0	—	2	12	1	12	3	25	7	18	5	12	7	13	1	09	0	31	15
	700	0	—	0	—	0	—	0	—	1	06	0	—	1	30	3	29	9	22	10	21	7	20	0	—	0	31	25
	600	0	—	0	—	0	—	0	—	0	—	0	—	1	24	3	37	14	33	9	28	4	30	0	—	0	31	33
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	45	12	34	6	50	2	45	1	34	0	25	40
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	53	7	35	2	39	2	33	1	36	0	14	38
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	105	4	40	2	47	2	50	0	—	0	9	51
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	89	3	47	3	52	1	37	0	—	0	8	53
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	42	2	60	1	38	0	—	0	7	58
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	74	2	44	1	50	0	—	0	7	62
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	61	2	52	0	—	0	—	0	5	57
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	0	—	0	—	0	—	0	1	32
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the wind has been observed within 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 — DECEMBER 1976

Time	Pressure Surface (Millibar)	Wind within 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	9	8	9	0	—	2	4	6	5	2	4	0	—	0	—	0	—	1	2	0	—	1	3	5	31	5
	1000	5	12	8	8	0	—	3	4	3	4	1	5	0	—	0	—	0	—	0	—	1	3	1	3	2	24	7
	850	5	12	5	13	0	—	1	7	2	19	1	16	0	—	2	22	5	13	3	15	5	13	2	10	0	31	14
	700	2	20	0	—	0	—	0	—	0	—	0	—	0	—	8	32	4	18	7	22	6	21	4	17	0	31	23
	600	1	24	0	—	0	—	1	8	0	—	0	—	0	—	8	35	8	30	6	28	6	30	1	29	0	31	30
	500	2	28	0	—	0	—	0	—	0	—	0	—	0	—	1	35	11	39	9	43	6	28	1	42	0	30	38
	400	1	99	0	—	0	—	0	—	0	—	0	—	0	—	3	58	7	39	12	60	5	50	1	68	0	29	54
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	132	6	56	9	80	4	45	3	43	0	23	65
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	68	5	82	3	41	2	40	0	17	64
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	42	7	68	1	38	0	—	0	11	59
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	61	0	—	3	61	2	71	0	—	0	6	64
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	101	0	—	0	—	0	1	101
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	3	07	7	10	0	—	0	—	1	07	0	—	1	04	8	06	1	03	5	08	0	—	5	08	0	31	7
	1000	2	06	4	11	0	—	0	—	0	—	0	—	1	04	4	05	0	—	3	14	0	—	3	09	0	17	10
	850	4	14	4	13	2	08	0	—	0	—	0	—	2	08	0	—	9	16	5	14	2	12	3	11	0	31	13
	700	0	—	0	—	1	14	0	—	0	—	0	—	1	12	2	20	8	24	8	24	7	15	4	20	0	31	20
	600	0	—	0	—	0	—	0	—	0	—	0	—	1	12	3	34	10	25	9	34	6	30	2	38	0	31	30
	500	0	—	0	—	0	—	0	—	0	—	0	—	1	23	1	21	11	33	12	41	3	40	3	49	0	31	37
	400	0	—	0	—	0	—	0	—	0	—	1	31	1	38	1	44	11	47	12	53	3	40	1	34	0	30	47
	300	1	46	0	—	0	—	0	—	0	—	0	—	1	51	1	29	10	62	5	67	3	77	1	83	0	22	63
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	35	8	78	5	57	3	57	1	48	0	19	64
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	86	5	80	4	68	1	50	1	56	0	13	73
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	90	3	94	1	63	1	54	0	6	82
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	63	0	1	63
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N — The number of cases the wind has been observed within 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 — DECEMBER 1976

Station	Pressure Surface (Millibar)	Wind within specified ranges of direction (000—360°)																								Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345/014		015/044		450/074		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		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	20	15	5	12	1	10	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	12	0	30	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	2	10	3	11	5	13	3	09	3	11	1	10	3	06	1	05	0	—	1	07	5	11	3	11	0	30	10
	700	0	—	3	05	0	—	0	—	1	15	2	07	3	09	0	—	6	17	4	26	4	17	4	11	0	27	14
	600	1	16	0	—	1	09	0	—	0	—	2	04	0	—	2	07	7	20	2	33	6	19	3	08	0	24	16
	500	1	37	0	—	0	—	0	—	0	—	0	—	0	—	1	20	5	31	9	15	3	45	3	17	0	22	24
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	24	3	36	6	23	5	48	4	22	0	19	32
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	32	7	55	6	51	2	12	0	17	46
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	39	8	61	6	58	0	—	0	16	57
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	58	4	76	7	53	4	77	0	—	0	16	71
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	80	11	62	2	80	0	—	0	15	56
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	41	2	45	6	52	2	60	0	—	0	11	51
	70	1	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	2	22	0	—	0	—	0	4	18
	60	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	—	0	—	1	10	0	—	1	10	0	3	10
	50	0	—	0	—	1	13	0	—	0	—	0	—	0	—	0	—	1	10	1	05	0	—	0		0	3	9
	40	0	—	0	—	0	—	0	—	0	—	1	11	0	—	0	—	1	15	0	—	0	—	0	—	0	2	13
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	29	0	—	0	1	29
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	14	10	5	8	2	9	0	—	0	—	0	—	0	—	0	—	0	—	1	5	3	9	3	12	2	30	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	8	3	8	5	7	5	8	2	11	1	7	0	—	0	—	2	6	3	11	3	12	3	9	0	30	9
	700	1	11	0	—	0	—	2	10	1	13	1	9	3	15	3	11	3	18	7	17	6	15	2	15	0	29	14
	600	4	12	0	—	0	—	1	6	0	—	1	3	1	4	0	—	6	15	6	21	3	36	0	—	0	22	17
	500	0	—	0	—	1	20	0	—	0	—	0	—	2	6	2	12	4	28	6	28	6	31	1	8	0	22	24
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	22	4	29	7	42	5	41	3	22	0	21	35
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	60	8	42	7	48	1	21	0	19	46
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	57	12	58	3	60	1	30	0	17	57
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	58	11	82	2	72	0	—	0	15	78
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	15	71	0	—	0	—	0	15	71
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	32	9	44	0	—	0	—	0	11	42
	70	0	—	1	14	0	—	0	—	0	—	0	—	1	—	0	—	1	15	4	22	1	14	0	—	0	7	19
	60	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0	—	0	—	3	19	0	—	0	—	0	4	19
	50	0	—	0	—	0	—	1	24	0	—	0	—	0	—	0	—	1	18	1	10	0	—	0	—	0	3	17
	40	0	—	0	—	0	—	1	13	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	2	16
	30	0	—	0	—	0	—	0	—	1	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	14
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N — The number of cases the element has been observed within 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—DECEMBER 1976

The mean daily air temperature was nearly the same as normal, and the mean daily relative humidity was below normal. The total monthly rainfall was only 0.6 mm. against 29.5 mm. for normal.

The month was intervened by three cold waves in the periods (1*st*, and 2*nd*), (13*th* - 22*nd*) and (28*th*, 29*th*). The last wave yielded the lowest maximum air temperature (17.0°C) on both the 28*th* and 29*th*.

Two short warm spells occurred in the periods (4*th* - 6*th*) and (11*th*, 12*th*). The first spell yielded the highest maximum air temperature (24.8°C) on the 4*th*.

The mean daily actual sunshine duration was slightly lower than average. The mean daily wind speed at 1.5 met. height was slightly lower than its value for December 1975.

The highest maximum soil temperatures were lower than the corresponding values of December 1975 at all depths with departures between 1.6°C (at 2 cm.) and 0.2°C (at both 10 & cm.). The lowest minimum soil temperatures were higher than the corresponding values of December 1975 at all depths with departures between 0.6°C (at 2 cm.) & 2.0°C (at 20cm.).

TAHRIR—DECEMBER 1976

The mean daily air temperature and relative humidity were nearly the same as normal. The total monthly rainfall was 8.2 mm. against 6.7 mm. for normal.

The month was intervened by a warm spell in the period (4*th* - 6*th*) yielding the highest maximum air temperature (28.1°C) on the 5th, and a cold spell on the (28th & 29th) yielding the lowest maximum air temperature (16.3°C) on the 29 th. In the rest of the month maximum air temperatures showed slight departures from normal. Minimum air temperatures were below normal most days of the month, and the lowest minimum was 3.3°C (on the 12th).

The mean daily actual sunshine duration was higher than normal by 0.4 hour. The mean daily wind speed at 1.5 met. height and pan evaporation wereslightly below normal.

The highest maximum soil temperatures were lower than average at depths between 2 & 20 cm. with departures between 1.9°C & 0.8°C: and higher than average at 50 & 100 cm. by 0.3°C & 0.9°C respectively. The lowest minimum soil temperatures were higher than average at all depths with departures between 0.2°C (at 2cm.) and 1.4°C (at 20 cm.).

BAHTIM—DECEMBER 1976

The mean daily air temperature and relative humidity were nearly the same as average. No rain was reported except 0.7 mm. on the 27th while the normal is 4.6 mm.

The month was intervened by three cold waves in the periods (1st - 3rd), (15th - 22nd) & (28th -31st). The last wave yielded the lowest maximum air temperature (17.2°C) on the 29th. Minimum air temperature at 5 cm. above dry soil field below 0°C on the 12th and above grass field on the 5th, 6th, & 12th; its values were respectively -1°C, -0.6°, -0.4° and-1.6°C.

Two short warm spells occurred in the periods (4*th* - 6*th*) & (12*th*, 13*th*). The first spell yielded the highest maximum air temperature (26.6°C) on the 5*th*.

The mean daily actual sunshine duration was higher than average by 1.2 hour. The mean daily wind speed at 1.5 met. height and pan evaporation were nearly the same as average.

The highest maximum soil temperatures were higher than average at 2 & 5 cm. depths by 4.6° & 3.0°C respectively and lower at 10 & 20 cm. by 0.7°& 0.8°C. The lowest minimum soil temperatures were higher than average at depths between 2 & 20cm. with departures between 3.1°C (at 2 cm) & 0.1°C (at 20 cm.).

KHARGA — DECEMBER 1976

The mean daily air temperature was above normal and the mean daily relative humidity was nearly the same as normal.

The month was characterized by four warm spells in the periods (5th - 8th), (12th - 14th), (23rd, 24th) & (27th) and three cold spells in the periods (1st - 3rd). (19th - 22nd) & (29th - 31st). The first warm spell yielded the highest maximum air temperature (30.1°C) on the 6*th* and the highest minimum (16.4°C) on the 8th. The last cold wave yielded thelowest maximun (18.6°C) on the 30th.

The mean daily actual sunshine duration, windspeed at 1.5 met. height and pan evaporation showed slight departures from normal.

The highest maximum soil temperatures were higher than average at all depths with departures between 3.6°C (at 2 cm) & 0.3°C (at 50 cm.). The lowest minimum soil temperatures were higher than average at 2,5,50 100 cm. depths with departures between 1.8°C & 1.0°C and lower than average at 10 &20cm. depths by 0.5°& 0.3°C respectively.

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

DECEMBER — 1976

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 . . .	19.7	11.0	15. 1	13.4	16.9	24.0	24.0	24 0	23.1	13.1	1.1	0.0	0.0	0.0	0.0	0.0
Tahrir	22.4	6.8	13.7	10.2	17.0	24.0	24.0	23.3	17.2	9.3	2.7	0.2	0	0	0	0
Bahtim	20.7	6.8	13.4	10.3	15.5	24.0	24.0	23.5	17.4	8.4	1.6	0.1	0	0	0	0
Kharga	24.1	9.0	17.1	14.4	19.8	24.0	24 0	24.0	22.1	15.3	6.8	1.4	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 — 1976

STATION	Max. Temp. at 1½ metres				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above ground			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	value	Date	value	Date	value	Date	value	Date	Value	Date	Value	Date
Mersa Matruh . .	24.8	4	17.0	28.29	16 2	7	8 5	16	5.2	16	—	—
Tahrir	28.1	5	16.3	29	11 8	7	3 3	12	1.4	12	0.5	12.27
Bahtim	26.6	5	17.2	29	10.0	7	3.0	31	—1.0	12	—1.6	12
Kharga	30.1	6	18.6	30	16.4	8	4.0	4	0.0	4	—	—

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

DECEMBER — 1976

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	200.8	199.9	313.8	64	58	46	11	5,6	7.3	7.6	12.0	9	1.3	6	7.3	—	0.6	0.3	28
Tahrir . .	—	238.4	316.8	75	71	48	28	27	8.1	8.6	14.7	7	4.2	25,26	3.3	3.30	8.2	8.0	31
Bahtim . .	—	241.3	317.1	76	69	48	29	5	7.7	8.8	12.1	7	4.2	26	3.7	3.36	0.7	0.7	27
Kharga .	—	296.8	379.2	90	43	32	10	14	6.0	6 7	9.8	7	2.2	28	6.4	6.33	0	0	—

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

DECEMBER — 1976

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil tmperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	30
M. Matruh	H	22.2	22.1	20.1	18.2	18.7	21.0	23 6	—	—	—	—	—	—	—	—	—
	L	9.1	9.9	12.0	14.4	16.2	19.4	22.4	—	—	—	—	—	—	—	—	—
Tahrir	H	26.3	23.8	21.1	19.0	19.9	22.3	24.6	25.4	19.3	18.5	17.5	17.2	17.5	19.6	22.3	—
	L	6.3	7.2	9.2	13.2	16.2	19.1	21.9	23.7	9.1	9.6	10.2	11.4	13.9	16.2	17.7	—
Bahtim.	H	34.7	27.3	21.1	19.7	21.8	23.6	24.9	24.3	24.8	18.5	17.9	16.6	18.9	21.1	22.5	—
	L	7.8	9.0	12.4	15.7	18.5	20.5	23.4	23.8	7.5	8.6	10.1	12.7	15.6	18.2	21.0	—
Kharga	H	37.7	32.6	27.6	24.0	24.8	28.0	29.6	29.9	—	—	—	—	—	—	—	—
	L	6.2	8.1	10.9	15.8	22.1	24.8	27.6	29.0	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

DECEMBER — 1976

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at 10 metres							Max. Gust (knots) at 10 metr	
	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 . .	3.6	3.0	4.2	29	20	8	4	1	1	0	38	3
Tahrir . . .	1.7	1.1	2.4	27	16	2	1	0	0	0	29	28
Bahtim. . . .	1.9	1.8	2.5	22	7	3	0	0	0	0	25	16
Kharga . . .	2.2	1.4	3.0	26	14	8	0	0	0	0	26	8,9

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