United (THE) ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 14 NUMBER 1

JANUARY, 1971

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

Orders for publications should be addressed to :

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

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

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

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

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

THE ANNUAL REPORT

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

CLIMATOLOGICAL NORMALS FOR EGYPT

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

METEOROLOGICAL RESEARCH BULLETIN

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

TECHNICAL NOTES

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

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FOREWORD

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

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

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

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

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

On January 1957, the Report has been completely revised, a new set of meteorological tables has been introduced to give, as far as possible, complete information 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 Eeports 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 gain totally revised. The number of meteorological stations appearing in the Report have been concentrated in the main synoptic stations working mostly continuously 24 hours. In addition climatological data included in the Report will be confined to the monthly mean values, monthly totals, monthly frequencies and monthly absolute values. More specific climatological data have to be requested from the Meteorological Authority.

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

Cairo, February 1972

Chairman (M. F. TAHA)
Board of Directors

INTRODUCTION AND EXPLANATION OF THE TABLES

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

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

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

The soil characteristics of these fields are :

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

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

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

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

— Relative humidity (%),

— Rainfall in millimetres,

— Snow depth in centimetres,

— Duration of bright sunshine in hours,

— Sky cover in octas,

— Evaporation in millimetres,

— Altitude of pressure surface in geopotential metres,

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

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

— Vapour pressure in millimetres.

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

Atmospheric Pressure.

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

Air Temperature.

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

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

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

Relative Humidity

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

Bright Sunshine Duration

The actual duration of bright sunshine for the month is the sum of the actual daily bright sunshine durations. The total possible duration for the month is the sum of the daily calculated periods between sunrise and sunset. In calculating the possible duration of sunshine for a given day, the periods of cut-off for that day caused by obstacles, such as mountains are eliminated from the possible duration with an ideal flat horizon. In case of stations where the record of day or more is or are missing, the total actual duration is given between brackets and a note is added at the end of the table giving the actual number of records (days) used in summing up this total actual. In such cases the corresponding total possible duration is also given in brackets and it is the sum of the possible 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 acutal 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 centimetres above ground just touching the grass tops if there is any. Grass minimum theromometers readings are taken daily as a routine base at 0600 U.T. Deviations from normals appear besides mean values in a separate column.

TABLE A3.—Sky Cover & Rainfall

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

The monthly total rainfall is the total rainfall during the month. The maximum daily rainfall and the number of days with rain < 0.1 and more than or equal 0.1, 1, 5, 10, 25 & 50 mms are extracted from the routine daily rainfall totals during the month. The rainfall for a given day is the amount of rain which has fallen during the 24 hours commencing at 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 maximum rain in 24 hours are included for actual occurrences up to three; when exceeding three, the symbol* is added besides the last three dates.

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

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

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

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

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

— A day of snow is the day druing 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 ation 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 sandstorms.

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

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

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

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

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

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

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

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

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

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

This table gives the following data :

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

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

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

UPPER AIR DATA

Table B 1.—Monthly Means and Monthly Absolute Higher & Lower Values of Altitude, air Temperature & Dew point at Standard and Selected Pressure Surface

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

The monthly mean values of the altitude, temperature and dew piont at each of these pressure surfaces are the arithmetical means of the corresponding daily values over the number of cases (N) indicated against each element. Whenever it is not possible 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 continuons 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 for radiation.

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

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

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

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

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

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

TABLE B 2.— 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. ; a separate table of this type is prepared for each hour as indicated in the notes on table B1. 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 BI.

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

— 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 tropooause,

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

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

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

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

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

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

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

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

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

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

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

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

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

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

TABLE C1.—Air Temperature at 1½ Metres Above Ground

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

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

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

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

TABLE C 2.—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 dry 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 include the Highest & Lowest limits of the daily corresponding routine values during the month.

The thermometers 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 white outside and black inside, and centered on the thermometer bulbs.

TABLE C 3.—(Solar + Sky) Radiation, Duration of Bright Sunshine, Relative Humidity, Vapour Pressure at 1½ meters above Ground, Evaporation & Rainfall.

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

The (solar + Sky) Radiation is obtained from the records of a Robitzsch Actinograph ; the Robitzch values at Bahtim and Tahrir are regularly compared with the records of an Epply pyrheliometer installed at the station. The sensitive elements of the Robitzsch Actiongraph and of the Epply pyrheliometer 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 evalualtion 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 Wetterdienst 1955. The relatve humidity and vapour pressure values for Mersa Matruh are drived from the readings of unventilated dry and wet bulb mercury thermometers freely sxposed in the screen, using the Jellink's Psychrometer Tables (Liepzig 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 Matuh 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 commission 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 C 4.—Extreme Soil Temperature at Different Depths (cms) in Dry Fields

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

The soil temperature readings are taken in the dry 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 Mers Matruh and Kharga where the observations are as appropriate but extend in the peirod between 1800 & 0600 U.T.

— at 0600 U.T. and every three hours for the 2,5 and 10 cms 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 C 5.—SURFACE WIND.

The monthly values of the daily mean, the night time mean and of the day time mean of the surface wind speed is the arithmetic mean of their corresponding daily evaluated values for the month respectively. The mean wind speed of the day is computed for the period of 24 hours from 1800 U.T. of the previous day; the night-time mean wind speed of the day is obtained from the total run of air during the period 1800 U.T. of the previous day to 0600 U.T. of that day ; the day-time mean is similarly computed for the period 0600 to 1800 U.T. of the same day. The type of the wind instrument used is of the run counter of the Lambrecht type ; the cups of which are at 1½ metres above the ground.

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

District	Station	Index number Hiii	Latitude °N	Longitude °N	Elevation of the ground in metres (H or Ha)	Altitude of the station in metres (Hp)	Altitude of the barometer cistern in metres	Height of wind recording instruments (metres)		Synoptic observations								Hourly observations (H) Half hourly observ. (h) (0000-2400)	Upper air ohsesvations P (Pilot Balloon) W (Radio Wind) R (Radio Sonde)				Remarks
								Above building	Above ground	00	03	06	09	12	15	18	21		00	06	12	18	
Mediterranean	Sallum	62 300	31 32	25 11	4.0	6.0	5.2	10	14	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Mersa Matruh (A)	306	31 20	27 13	28.3	30.0	30.0	8	15	×	×	×	×	×	×	×	×	H	RW	W	RW	W	
	Alexandria (A)	318	31 12	29 57	—3.4	7.0	6 8	10	18	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Port Said (A)	333	31 17	32 14	1.9	6.1	6.1	10	19	×	×	×	×	×	×	×	×	H	P	—	P	—	
	El Arish	336	31 07	33 45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Ghazza	338	31 30	34 27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Lower Egypt	Tanta	348	30 47	31 00	14.0	14.8	15.4	10	14	×	×	×	×	×	×	×	×	H	—	—	—	—	
Cairo Area	Cairo	366	30 08	31 34	94.7	74.5	74.0	14	18	×	×	×	×	×	×	×	×	h	—	—	—	—	
	Helwan	378	29 52	31 20	139.3	—	—	10	20	—	—	—	—	—	—	—	—	—	RW	W	RW	W	
Upper Egypt	Fayoum	381	29 18	30 51	22.0	23.3	23.2	10	14	—	—	×	×	×	×	×	—	H	—	—	—	—	
	Minya (A)	387	28 05	30 44	29.0	40.0	44.2	7	10	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Assyout	393	27 11	31 06	71.0	69.6	69.5	15	20	×	×	×	×	×	×	×	×	H	—	—	—	—	
	Luxor (A)	405	25 40	32 42	94.9	88.5	88.4	7	15	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Aswan (A)	414	23 58	32 47	200.0	193.5	200.0	10	14	×	×	×	×	×	×	×	×	H	RW	W	RW	W	
Western Desert	Siwa	417	29 12	25 29	—15.0	—13.5	—13.3	10	17	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Bahariya	420	28 20	28 54	128.0	129.5	129.6	—	—	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Farafra	423	27 03	27 58	90.0	91.8	92.1	—	—	—	—	×	×	×	×	×	—	H	—	—	P	—	
	Dakhla	432	25 29	29 00	110.0	111.5	111.5	10	15	×	×	×	×	×	×	×	×	H	P	—	P	—	
	Kharga	435	25 27	30 32	77.8	72.8	78.8	10	15	×	×	×	×	×	×	×	×	H	P	—	P	—	
Red Sea	Tor	459	28 14	33 37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Hurghada	462	27 17	33 46	1.0	2.8	2.8	8	12	×	×	×	×	×	×	×	×	H	—	—	P	—	
	Quseir	465	26 08	34 18	8.0	11.3	11.3	12	15	×	×	×	×	×	×	×	×	H	—	—	—	—	

GENERAL SUMMARY OF WEATHER CONDITIONS

JANUARY 1971

A pronounced warm spell in the first week, rather changeable weather otherwise. Records for daily rainfall at Port Said and Hurghada. Frequent early morning mist, and fog in the north.

GENERAL DESCRIPTION OF WEATHER

This month started with a pronounced warm spell which prevailed all over the Republic in the first week and was associated with record for the highest maximum air temperature at Port Said (29.7°C) on the 3rd.

In the second week a moderate cold wave prevailed which was characterized with scattered heavy rain round the 9th yielding rainfall records at Port Said (15 mm) on the 8th and Hurghada (2.2 mm) on the 10th. During the second half of the month consecutive light cold and warm waves were experienced and scattered light rain was reported in the fourth week.

Early morning mist and fog developed in many days of the month over scattered localities in Delta, Canal and Cairo.

Light rising sand was reported in several days over few scattered localities.

PRESSURE DISTRIBUTION

The outstanding pressure systems over the synoptic surface charts during this month were :

— The Atlantic anticyclone and its extension over NW Africa.

— The Siberian anticyclone and its extensions westwards through Europe and southwestwards to East Med.

— Deep low pressure systems through North Europe.

— Secondary depressions through the Med. and its vicinities.

— The Sudan monsoon trough.

During this month five Mediterranean depressions were distinguished, three of which originated over West Mediterranean and two over Central Mediterranean.

The first depression appeared over West Mediterranean on the 1st, moved eastwards reaching the Balkans on the 3rd, then it continued its track northeastwards towards the Black Sea on the 4th.

The second depression developed over West Med. on the 4th, moved slowly eastwards and amalgamated with the extension of the Sudan trough through East Med. On the 8th this depression occupied East Med. where it remained quasistationary till the 10th, then it moved eastwards while filling the next day.

The third depression developed over West Med. on the 15th, moved slowly eastwards reaching Central Med. on the 18th, then southeastwards reaching East Med. on the 20th when the Sudan trough showed a northward elongation. This depression filled up the next day over East Med.

The fourth depression appeared over Central Med. on the 23rd, moved rapidly to East Med. on the 24th and proceeded afterwards towards the east while filling.

The last depression during this month appeared over Central Med. on the 26th, moved rapidly to East Med. on the 27th and then it proceeded afterwards northeastwards while filling.

The barometric pressure over the country this month was mainly affected by the transits of the above mentioned secondary depressions through East Med. and the subsequent extension of high pressure. Accordingly it experienced corresponding oscillations generally of moderate amplitudes and reached consecutive minima round the 8th, 15th, 20th & 24th, the first of which was the most pronounced.

In the upper levels up to 500 mb. five upper troughs were distinguished through the Med. in association with the above mentioned surface depressions. The first upper trough moved northeastwards traversing the Balkans on the 4th. The other four troughs proceeded eastwards and traversed East Med. on the 14th, 21st, 25th, & 28th, the first of which was the deepest and most pronounced.

SURFACE WIND

The prevailing winds over the northern part of the Republic were generally light to moderate W/NW, and backed to SWly in few days. Over the southern parts light to moderate N/NW winds prevailed.

Winds became fresh to strong during few days over scattered parts in Mediterranean and Red Sea districts.

TEMPERATURE

Maximum air temperature experienced large variability during this month. It was appreciably above normal during the first week and reached a record (29.7°C) at Port Said on the 3rd. During the rest part of the month, maximum air temperature oscillated moderately round normal. Maximum air temperatures ranged generally between 19°C & 26°C in th northern and middle parts and between 22°C & 30°C in the southern parts.

The absolute maximum air temperature for the Republic during the month was 33.4°C reported at Draw on the 8th.

Minimum air temperature was also apprecially above normal in the first week. During rest of the month, minimum air temperature oscillated slightly round normal.

Minimum air temperatures ranged most of the month between 6°C & 15°C in the northern and southern parts and between 3°C & 12°C in the middle parts.

The absolute minimum air temperature for the Republic this month was 0·1°C reported at Siwa on the 19th.

PRECIPITATION

Rain fell over the Med. district during several days mostly in the second and fourth weeks, and extended inland to scattered localities during the 9th, 24th & 27th. The daily rainfall was generally light to moderate, though it was heavy and associated with thunderstorms over scattered localities in the north round the 9th. It is worthy of mention that the daily rainfall attained records at Port Said (15.0 mm) on the 8th and Hurghada (2.2 mm) on the 10th. The monthly rainfall was generally above normal.

The maximum daily rainfall was 25.0 mm reported at Damanhour on the 9th.

The Maximum monthly rainfall was 71.6 mm. reported at Rosetta.

Cairo, February 1972

Chairman (M. F. TAHA)
Board of Directors

SURFACE DATA

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

JANUARY 1971

STATION	Atmospheric Pressure (m's) 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	1016.9	—0.6	20.7	+1.8	11.1	+1.9	15.9	15.2	+1.0	11.1	+0.8	57	— 1	—	—	—	7.2
Mersa Matruh . (A)	1017.6	+0.2	19.7	+1.5	9.4	+1.1	14.6	14.1	—1.2	10.9	+1.1	65	0	222.2	320.6	69	5.4
Alexandria . . (A)	1018.1	+0.4	20.0	+1.5	9.6	+0.3	14.8	14.5	+0.9	12.4	+1.4	77	+ 7	210.5	322.3	65	2.6
Port Said . . (A)	1017.0	—0.4	21.1	+3.0	12.4	+1.0	16.8	15.9	+1.6	13.5	+1.6	75	+ 3	235.1	322.3	73	4.0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1017.5	+0.1	20.9	+1.2	7.5	+1.3	14.2	13.5	+0.9	11.2	+1.2	74	+ 4	223.6	323.4	69	2.4
Cairo . . . . . (A)	1017.9	—0.1	21.7	+2.7	10.2	+1.4	16.0	15.5	+1.7	11.4	+1.3	58	— 1	—	—	—	8.2
Fayoùm	—	—	22.3	+1.9	6.8	+0.5	14.6	14.0	+0.7	11.0	+1.1	67	+ 6	—	—	—	2.8
Minya . . . . (A)	1017.6	—1.0	23.0	+2.3	6.0	+2.0	14.5	13.9	+2.0	10.0	+1.8	58	0	267.3	328.8	81	5.2
Assyout. . . . (A)	1017.4	—1.1	23.2	+2.4	8.4	+1.6	15.8	15.2	+1.6	10.3	+1.9	50	+ 4	—	—	—	7.3
Luxor . . . . (A)	1016.9	—0.2	25.8	+2.7	8.5	+2.9	17.2	16.4	+2.2	11.5	+2.0	52	0	—	—	—	5.1
Aswan . . . . (A)	1016.5	—0.5	25.7	+1.5	10.4	+2.0	18.0	17.8	+1.8	11.3	+2.2	40	+ 7	—	—	—	10.5
Siwa	1017.6	—1.1	21.4	+1.7	6.2	+1.9	13.8	13.4	+1.5	9.4	+1.5	56	+ 4	262.5	326.2	80	5.5
Bahariya	1017.9	—0.7	22.9	+2.9	7.0	+2.5	15.0	14.3	+1.5	9.1	+0.8	46	+ 4	—	—	—	4.9
Farafra	1019.5	—0.8	22.1	+1.3	5.8	+1.4	14.0	13.5	+0.9	9.0	+2.4	51	+ 9	—	—	—	7.2
Dakhla	1017.9	—0.2	23.7	+2.2	5.1	+0.8	14.4	13.9	+1.4	8.4	+1.4	43	+ 6	—	—	—	8.0
Kharga	1017.3	—0.7	24.9	+3.7	8.7	+2.8	16.8	16.9	+2.7	10.4	+1.6	43	— 2	287.6	334.0	86	9.0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1017.0	+0.3	23.3	+2.5	11.5	+1.8	17.4	17.3	+1.4	12.8	+1.8	56	+ 4	287.0	330.8	87	8.6
Quseir	1016.6	+0.1	23.4	+0.8	15.7	+1.9	19.0	19.6	+1.3	14.6	+1.7	55	+ 6	—	—	—	8.8

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

JANUARY — 1971

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	28.6	2	15.9	9	3	0	0	0	0	10.7	—	17.0	4	7.8	18	15	0	0	0
Mersa Matruh (A)	27.2	3	16.8	24	2	0	0	0	0	7.6	—	15.7	7	6.5	31	22	0	0	0
Alexandria (A)	26.4	7	15.6	9	2	0	0	0	0	7.7	—	14.5	7	6.4	18	18	0	0	0
Port Said (A)	29.7	3	17.4	27	3	0	0	0	0	11.5	—	16.8	8	10.0	28	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	29.2	7	15.7	9	4	0	0	0	0	—	—	13.8	8	4.5	31	28	3	0	0
Cairo	30.0	7	16.6	10	6	0	0	0	0	—	—	16.8	8	6.4	31	15	0	0	0
Fayoum	28.7	7	16.5	9	5	0	0	0	0	3.7	—	14.6	8	4.0	17	26	8	0	0
Minya (A)	29.8	7	16.8	9	9	0	0	0	0	4.1	—	15.6	8	3.0	13	28	14	0	0
Assyout (A)	30.6	3	16.4	9	9	3	0	0	0	5.8	—	16.1	8	5.0	31	22	0	0	0
Luxor (A)	32.4	8	19.0	10	15	7	0	0	0	8.3	—	18.8	8	4.0	16	20	6	0	0
Aswan (A)	33.0	8	17.7	10	15	7	0	0	0	—	—	18.2	8	6.5	11·12	20	0	0	0
Siwa	28.6	4	17.2	21	6	0	0	0	0	4.5	—	13.0	7	0.1	19	29	13	0	0
Bahariya	31.0	7	16.2	9	8	3	0	0	0	5.8	—	12.9	6	3.8	15	26	7	0	0
Farafra	30.9	7	17.1	9	7	2	0	0	0	5.1	—	14.0	8	0.6	16	26	16	0	0
Dakhla	31.4	7	16.1	9	12	3	0	0	0	5.0	—	13.2	8	0.3	17	27	13	0	0
Kharga	33.2	5	19.0	13	14	6	0	0	0	5.9	—	17.4	5	2.4	22	20	7	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	28.0	6	20.5	26	8	0	0	0	0	—	—	22.1	9	7.4	18	9	0	0	0
Qusier	27.5	2	20.7	13	8	0	0	0	0	13.4	—	22.0	9	11.2	26	0	0	0	0

Table A 3. SKY COVER AND RAINFALL

JANUARY — 1971

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	4.1	4.7	4.7	4.1	4.4	5.9	—12.9	3.8	7	0	4	2	0	0	0	0
Mersa Matruh (A)	1.9	4.1	4.5	2.6	3.2	1.3	—29.4	0.5	24	2	5	0	0	0	0	0
Alexandria (A)	4.1	4.4	5.2	4.2	4.3	59.7	+10.6	29.7	8	1	10	8	2	2	1	0
Port Said (A)	1.9	2.0	2.6	1.9	2.2	21.1	+ 8.6	15.0	8	0	5	3	1	1	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.8	2.2	4.2	2.0	2.3	39.2	+29.0	19.0	9	0	4	4	2	2	0	0
Cairo (A)	1.6	2.5	4.1	3.2	2.6	2.7	— 2.4	2.4	9	1	3	1	0	0	0	0
Fayoum	—	1.9	3.6	2.0	—	2.0	+ 1.0	2.0	9	1	1	1	0	0	0	0
Minya (A)	1.3	2.5	2.7	1.6	1.8	5.8	+ 5.4	5.8	10	0	1	1	1	0	0	0
Assyout (A)	0.8	1.5	1.9	1.3	1.2	Trace	0.0	Trace	7,9	2	0	0	0	0	0	0
Luxor (A)	1.1	1.3	1.8	1.4	1.4	Trace	— 0.1	Trace	10,11	2	0	0	0	0	0	0
Aswan (A)	0.8	1.2	1.2	1.4	1.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	1.5	2.3	3.0	1.2	2.0	3.0	+ 2.1	3.0	21	2	1	1	0	0	0	0
Bahariya	1.0	2.1	3.0	1.2	1.8	Trace	0.0	Trace	9.24	2	0	0	0	0	0	0
Farafra	—	2.0	2.6	1.5	—	0.2	+ 0.2	0.2	9	0	1	0	0	0	0	0
Dakhla	1.8	0.7	0.9	0.8	1.0	0.0	—Trace	0.0	—	0	0	0	0	0	0	0
Kharga	1.4	1.5	1.7	1.1	1.4	Trace	— 0.1	Trace	9	1	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.5	1.7	2.1	1.5	1.7	3.8	+ 3.8	2.2	10	0	2	2	0	0	0	0
Quseir	1.4	1.3	0.8	1.4	1.4	Trace	0.0	Trace	10	1	0	0	0	0	0	0

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

JANUARY — 1971

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 Metres	Fog Vis < 10000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice. Pellets	Hail											
Sallum	4	0	0	0	0	0	0	0	0	0	0	0	0	2	1
Mersa Matruh (A)	5	0	0	0	0	4	2	2	1	0	8	2	0	7	1
Alexandria (A)	10	0	0	0	0	3	6	8	8	0	0	0	0	4	3
Port Said (A)	5	0	0	0	0	1	0	0	0	0	1	0	0	12	2
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	4	0	0	0	0	1	9	5	4	0	0	0	0	13	1
Cairo (A)	3	0	0	0	0	0	8	3	4	0	10	0	0	15	0
Fayoum	1	0	0	0	0	0	8	0	0	0	0	0	0	—	—
Minya (A)	1	0	0	0	0	0	8	2	17	0	2	0	0	17	1
Assyout (A)	0	0	0	0	0	0	0	0	3	0	2	0	0	24	0
Luxor (A)	0	0	0	0	0	0	0	0	20	0	8	0	0	21	0
Aswan (A)	0	0	0	0	0	0	0	0	4	0	8	0	0	23	0
Siwa	1	0	0	0	0	0	0	0	0	0	3	0	0	16	0
Bahariya	0	0	0	0	0	0	2	0	0	0	—	0	0	16	1
Farafra	1	0	0	0	0	0	0	0	1	0	2	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	1	0	2	0	0	28	0
Kharga	0	0	0	0	0	1	0	0	1	0	3	0	0	27	2
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	2	0	0	0	0	0	0	0	0	0	2	0	0	21	2
Quseir	0	0	0	0	0	0	0	0	0	0	1	0	0	23	2

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

JANUARY — 1971

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	044 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	0	0	0	1-10	15	34	61	29	28	27	34	52	35	65	66	32	478
				11-27	0	2	3	2	0	0	5	18	63	117	46	9	265
				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	**15**	**36**	**64**	**31**	**28**	**27**	**39**	**70**	**99**	**182**	**112**	**41**	**744**
Mersa Matruh	9	1	0	1-10	26	27	14	20	27	41	32	28	77	33	19	38	382
				11-27	0	0	0	5	25	37	28	58	115	38	24	18	348
				28-47	0	0	0	0	0	0	0	2	0	0	2	0	4
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**26**	**27**	**14**	**25**	**52**	**78**	**60**	**88**	**192**	**71**	**45**	**56**	**734**
Alexandria	2	0	1	1-10	38	55	45	54	56	44	67	105	45	43	36	67	655
				11-27	1	3	1	3	1	1	0	15	25	15	17	4	86
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**39**	**58**	**46**	**57**	**57**	**45**	**67**	**120**	**70**	**58**	**53**	**71**	**741**
Port Said	53	0	0	1-10	44	58	32	127	51	24	20	45	70	89	37	33	630
				11-27	3	1	1	4	2	3	1	2	19	16	0	9	61
				47-28	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**47**	**59**	**33**	**131**	**53**	**27**	**21**	**47**	**89**	**105**	**37**	**42**	**691**
Tanta	76	0	0	1-10	36	58	57	78	33	15	38	86	81	48	38	31	599
				11-27	0	0	1	7	4	0	0	5	13	16	14	9	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	**36**	**58**	**58**	**85**	**37**	**15**	**38**	**91**	**94**	**64**	**52**	**40**	**668**
Cairo	95	0	7	1-10	12	40	41	62	42	35	79	48	40	51	52	28	530
				11-27	0	6	13	7	6	4	17	28	5	16	9	1	112
				28-47	0	0	0	0	0	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**	**46**	**54**	**69**	**48**	**39**	**96**	**76**	**45**	**67**	**61**	**29**	**643**
Fayoum	6	5	0	1-10	56	105	42	35	27	33	58	102	114	42	52	58	724
				1-27	1	4	1	0	0	0	0	0	1	0	0	2	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	**57**	**109**	**43**	**35**	**27**	**33**	**58**	**102**	**115**	**42**	**52**	**60**	**733**
Minya	21	0	1	1-10	183	57	11	13	6	45	78	47	34	45	61	109	689
				11-27	14	0	0	0	0	0	2	0	2	0	5	10	33
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**197**	**57**	**11**	**13**	**6**	**45**	**80**	**47**	**36**	**45**	**66**	**119**	**723**

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

JANUARY — 1971

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												
					345 / 014	015 / 044	845 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions
Assyout	65	0	2	1-10	41	10	21	14	56	32	20	9	14	151	118	83	569
				11-27	3	2	0	0	6	18	3	0	3	4	22	47	108
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**44**	**12**	**21**	**14**	**62**	**50**	**23**	**9**	**17**	**155**	**140**	**130**	**677**
Luxor	31	0	0	1-10	91	61	45	26	18	43	70	32	50	47	58	104	645
				11-27	4	21	8	0	1	4	1	1	2	5	13	8	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	**95**	**82**	**53**	**26**	**19**	**47**	**71**	**33**	**52**	**52**	**71**	**112**	**713**
Aswan	10	0	0	1-10	209	49	20	11	28	5	8	11	10	11	9	97	468
				11-27	92	28	19	28	8	0	1	1	1	2	11	74	265
				28-47	0	0	0	0	0	0	0	0	0	0	1	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**301**	**77**	**39**	**39**	**36**	**5**	**9**	**12**	**11**	**13**	**21**	**171**	**734**
Siwa	64	8	13	1-10	6	10	29	61	77	49	27	13	41	132	76	21	542
				11-27	0	2	4	1	9	6	1	1	8	43	39	3	117
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**6**	**12**	**33**	**62**	**86**	**55**	**28**	**14**	**49**	**175**	**115**	**24**	**659**
Dakhla	39	14	7	1-10	17	14	28	45	58	41	52	40	60	93	117	83	648
				11-27	2	0	0	0	3	0	0	0	0	2	16	13	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	**19**	**14**	**28**	**45**	**61**	**41**	**52**	**40**	**60**	**95**	**133**	**96**	**684**
Kharga	0	0	5	1-10	206	118	27	25	14	10	14	13	11	20	51	128	637
				11-27	44	3	1	1	0	0	0	1	2	0	15	35	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	**250**	**121**	**28**	**26**	**14**	**10**	**14**	**14**	**13**	**20**	**66**	**163**	**739**
Hurghada	32	2	0	1-10	33	20	18	17	23	12	3	4	6	30	120	30	316
				11-27	70	0	0	1	40	6	1	0	0	21	142	110	391
				28-47	0	0	0	0	0	0	0	0	0	0	2	1	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**103**	**20**	**18**	**18**	**63**	**18**	**4**	**4**	**6**	**51**	**264**	**141**	**710**
Qusseir	2	1	0	1-10	35	66	22	9	25	21	22	4	11	10	206	120	551
				11-27	56	60	2	0	0	4	1	0	0	1	13	51	188
				28-47	0	0	1	1	0	0	0	0	0	0	0	0	2
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**91**	**126**	**25**	**10**	**25**	**25**	**23**	**4**	**11**	**11**	**219**	**171**	**741**

UPPER AIR CLIMATOLOGICAL DATA

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

JANUARY 1971

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	31	*1016m.b.	*1023m.b.	*1009m.b.	31	12.4	17.2	8.0	31	8.6
	1000	30	158	220	103	30	14.6	21.9	10.3	30	9.5
	850	31	1520	1590	1447	31	8.4	17.3	1.3	31	—3.8
	700	31	3102	3201	3000	31	—0.2	8.7	—6.7	31	—14.5
	600	30	4316	4451	4193	30	—8.6	—0.3	—14.9	30	—20.7
	500	30	5705	5875	5561	30	—18.6	—12.2	—26.3	30	—30.8
	400	30	7331	7532	7155	30	—31.2	—26.0	—38.3	30	—42.9
	300	30	9311	9545	9094	30	—45.4	—40.6	—50.8	29	—56.1
	250	29	10514	10746	10278	29	—51.5	—41.8	—58.0	29	—61.8
	200	28	11958	12158	11728	28	—55.0	—46.3	—64.8	19	—62.5
	150	26	13777	13958	13560	26	—59.1	—50.9	—66.3	11	—67.8
	100	22	16280	16479	16041	22	—65.7	—61.2	—71.3	—	—
	70	12	18459	18668	18220	12	—65.3	—61.1	—69.7	—	—
	60	7	19483	19660	19300	7	—62.5	—58.6	—65.5	—	—
	50	7	20554	20764	20376	7	—60.3	—45.9	—65.2	—	—
	40	4	21978	22080	21760	4	—62.0	—57.5	—66.5	—	—
	30	4	23689	23770	23543	4	—60.5	—51.6	—66.5	—	—
	20	1	26265	—	—	1	—59.8	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 UT	Surface	30	*1001m.b.	*1007m.b.	*993m.b.	30	12.5	21.4	8.4	30	5.9
	1000	30	146	199	80	21	11.8	19.8	9.0	21	6.3
	850	30	1506	1559	1436	30	7.8	16.9	1.0	30	—4.7
	700	30	3084	3170	2990	29	—0.4	6.8	—6.8	29	—16.2
	600	30	4299	4418	4178	30	—8.4	—1.5	—15.8	30	—23.5
	500	30	5690	5842	5538	30	—17.7	—5.9	—27.0	30	—32.5
	400	29	7320	7493	7102	29	—30.3	—25.8	—39.8	29	—40.6
	300	28	9313	9496	9082	28	—43.2	—35.6	—49.0	28	—53.6
	250	26	10518	10695	10333	25	—49.6	—40.1	—55.7	25	—57.2
	200	24	11969	12100	11796	24	—54.9	—47.5	—64.1	18	—63.0
	150	23	13788	13934	13633	23	—61.4	—57.0	—67.4	6	—68.5
	100	20	16270	16408	16120	20	—67.7	—63.0	—73.1	—	—
	70	16	18409	18543	18282	16	—67.1	—63.4	—74.1	—	—
	60	11	19345	19530	19040	11	—65.1	—62.3	—69.4	—	—
	50	11	20465	20623	20298	11	—64.4	—59.8	—67.5	—	—
	40	7	21865	22060	21700	7	—65.0	—62.2	—69.5	—	—
	30	7	23609	23813	23408	7	—63.1	—57.9	—70.3	—	—
	20	4	26070	26359	25868	4	—58.1	—51.1	—65.3	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 UT	Surface	27	*992m.b.	*995m.b.	*985m.b.	27	14.4	22.6	8.8	27	4.7
	1000	27	123	152	63	—	—	—	—	—	—
	850	27	1500	1537	1451	27	12.2	20.7	5.0	26	—4.7
	700	26	3102	3156	3043	26	3.8	9.2	0.1	24	—14.7
	600	22	4343	4410	4269	22	—2.4	2.3	—9.5	20	—22.8
	500	19	5769	5846	5678	19	—11.6	—8.8	—18.9	18	—30.1
	400	17	7443	7526	7303	17	—23.7	—17.6	—29.5	16	—37.6
	300	15	9487	9572	9313	15	—38.0	—32.7	—42.7	15	—50.1
	250	13	10722	10790	10557	13	—45.9	—41.0	—50.4	12	—57.7
	200	13	12178	12261	12028	13	—55.3	—53.0	—56.8	12	—65.8
	150	13	13977	14064	13827	13	—63.9	—59.8	—68.7	1	—69.6
	100	12	16414	16526	16250	12	—72.2	—68.8	—77.0	—	—
	70	8	18538	18642	18346	8	—69.0	—65.3	—72.8	—	—
	60	8	19512	19620	19320	8	—66.5	—65.3	—69.4	—	—
	50	8	20572	20690	20368	8	—57.4	—61.3	—69.0	—	—
	40	5	22116	22380	21830	5	—63.0	—61.4	—64.8	—	—
	30	5	23746	23882	23475	5	—60.5	—54.0	—70.3	—	—
	20	5	26298	26493	25905	5	—54.4	—50.1	—64.0	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

UPPER AIR CLIMATOLOGICAL DATA

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

JANUARY 1971

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 1200 UT	Surface	30	1075m.b.	*1024m.b.	*1000m.b.	30	18.7	30.7	13.6	30	9.8
	1000	30	155	230	96	30	17.1	24.1	13.0	30	8.7
	850	30	1517	1580	1457	30	7.9	15.4	3.0	30	—4.1
	700	28	3097	3159	3003	28	—0.7	8.0	—7.5	27	—11.9
	600	26	4304	4444	4290	26	—8.5	—0.2	—14.5	26	—20.5
	500	25	5696	5872	5556	25	—18.7	—12.0	—25.5	25	—31.1
	400	25	7327	7533	7146	25	—30.1	—25.0	—36.7	24	—40.6
	300	24	9305	9545	9078	24	—45.7	—40.6	—51.2	24	—55.2
	250	24	10496	10764	10289	24	—51.4	—45.8	—58.0	24	—60.3
	200	23	11946	12180	11727	23	—55.0	—47.5	—65.4	13	—61.8
	150	18	13778	13946	13582	18	—58.7	—55.2	—64.0	8	—66.2
	100	11	16332	16552	16102	11	—65.6	—60.6	—72.5	1	—71.6
	70	6	18577	18662	18503	6	—62.3	—58.0	—68.5	—	—
	60	4	19499	19570	19277	4	—63.5	—59.2	—67.5	—	—
	50	4	20616	20687	20560	4	—62.2	—60.7	—65.2	—	—
	40	2	22124	22160	22088	2	—59.6	—56.5	—62.6	—	—
	30	2	23840	23894	23787	2	—59.8	—56.0	—63.8	—	—
	20	1	26550	—	—	1	—47.9	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
He'wan 1200 UT	Surface	30	*1001m.b.	*1007m.b.	*994m.b.	30	20.4	28.9	11.2	30	6.9
	1000	30	145	195	88	20	20.3	28.7	16.2	20	7.1
	850	30	1518	1574	1456	29	9.4	18.8	2.9	29	—2.2
	700	30	3103	3197	3031	30	0.9	8.6	—7.9	30	—13.6
	600	30	4328	4454	4218	30	—6.9	1.1	—18.0	30	—21.2
	500	30	5729	5889	5579	30	—16.1	—7.6	—24.3	30	—30.3
	400	30	7366	7559	7169	30	—28.6	—24.0	—36.2	30	—40.0
	300	27	9340	9599	9132	27	—43.1	—39.0	—48.6	27	—53.3
	250	26	10573	107[illegible]	10352	26	—48.7	—40.6	—53.6	26	—58.5
	200	23	12035	122[illegible]	11842	23	—54.5	—47.0	—65.7	16	—61.6
	150	20	13862	140[illegible]4	13582	20	—60.1	—56.5	—64.7	11	—66.7
	100	17	16368	16615	16170	17	—66.3	—60.0	—71.0	—	—
	70	16	18523	18[illegible]	18332	16	—65.4	—60.9	—70.0	—	—
	60	13	19505	19[illegible]	19310	13	—63.7	—59.4	—68.0	—	—
	50	13	20580	20883	20387	13	—62.5	—57.5	—66.3	—	—
	40	9	22110	22600	21850	9	—61.1	—58.5	—63.6	—	—
	30	9	23785	24083	23532	9	—59.7	—55.5	—63.2	—	—
	20	7	26426	26750	26162	7	—50.7	—41.8	—58.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	26	*990m.b.	*996m.b.	*984m.b	26	24.8	32.4	15.0	26	5.3
	1000	26	105	157	49	—	—	—	—	—	—
	850	26	1503	1546	1473	26	12.7	20.1	4.8	26	—3.8
	700	23	3112	3164	3069	23	5.9	11.2	1.0	23	—13.2
	600	19	4316	4411	4304	19	—1.3	2.5	—8.0	19	—19.3
	500	19	5792	5843	5711	19	—10.8	—8.6	—14.5	19	—26.9
	400	18	7473	7529	7376	18	—22.4	—16.8	—25.6	18	—37.7
	300	15	9529	9565	9484	15	—37.9	—31.9	—41.4	14	—50.5
	250	13	10755	10805	10700	13	—47.0	—39.6	—51.8	11	—58.5
	200	11	12209	12298	12135	11	—54.2	—50.3	—57.2	10	—65.4
	150	9	14034	14137	13972	9	—62.2	—57.6	—64.7	2	—71.6
	100	9	16481	16609	16386	9	—71.4	—66.5	—80.8	—	—
	70	7	18611	18747	18445	7	—68.1	—65.0	—72.4	—	—
	60	6	19508	19700	19140	6	—65.0	—61.7	—69.7	—	—
	50	6	20645	20807	20418	6	—63.3	—60.3	—66.0	—	—
	40	2	22100	22150	22100	2	—65.6	—65.1	—66.1	—	—
	30	2	23781	23815	23747	2	—57.8	—57.7	—57.8	—	—
	20	1	26435	—	—	1	—47.5	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

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

JANUARY — 1971

	Station	Freezing level: Mean: Altitude (gpm)	Freezing level: Mean: Pressure (mb.)	Freezing level: Mean: Dew point (°C)	Freezing level: Highest: Altitude (gpm)	Freezing level: Highest: Pressure (mb.)	Freezing level: Highest: Dew point (°C)	Freezing level: Lowest: Altitude (gpm)	Freezing level: Lowest: Pressure (mb.)	Freezing level: Lowest: Dew point (°C)	First Tropopause: Mean: Altitude (gpm)	First Tropopause: Mean: Pressure (mb.)	First Tropopause: Mean: Temperature (°C)	First Tropopause: Highest: Altitude (gpm)	First Tropopause: Highest: Pressure (mb.)	First Tropopause: Highest: Temperature (°C)	First Tropopause: Lowest: Altitude (gmb)	First Tropopause: Lowest: Pressure (mb.)	First Tropopause: Lowest: Temperature (°C)	Highest wind speed: Altitude (gpm)	Highest wind speed: Pressure (mb.)	Highest wind speed: Direction (0°–360°)	Highest wind speed: Speed in Knots
		(N)	(N)	(N)							(N)	(N)	(N)										
0000 U.T.	Mersa Matruh.	2942 (30)	717 (30)	−12.3 (30)	4400	603	−16.6	1740	822	−9.2	10750 (24)	245 (24)	−55.4 (24)	12600	180	−64.4	7580	379	−40.2	12426	188	260	150
0000 U.T.	Helwan. . . .	2928 (30)	717 (30)	−13.8 (30)	4200	618	−14.6	1690	831	−3.0	12698 (21)	193 (21)	−66.5 (21)	16570	99	−71.1	7460	376	−42.9	11600	218	245	176
0000 U.T.	Aswan.	3875 (23)	637 (23)	−19.9 (21)	4740	575	−30.3	3090	699	−10.2	15252 (8)	132 (8)	−68.6 (8)	17500	86	−73.7	11600	220	−55.8	12184	202	252	190
		(N)	(N)	(N)							(N)	(N)	(N)										
12 U.T.	Mersa Matruh.	2968 (27)	713 (27)	−13.4 (27)	4390	604	−25.0	1890	806	−6.8	10851 (21)	238 (21)	−56.6 (21)	12840	180	−67.3	8920	309	−52.7	11848	203	230	166
12 U.T.	Helwan. . . .	3216 (30)	694 (30)	−14.0 (30)	4600	590	−22.8	1800	817	−4.8	13058 (18)	186 (18)	−59.2 (18)	21050	46	−64.7	8960	309	−44.9	9530	294	270	160
12 U.T.	Aswan.	4070 (20)	624 (20)	−18.3 (20)	4630	583	−23.4	2320	770	−15.5	15377 (7)	125 (7)	−68.4 (7)	17480	86	−74.5	11950	207	−58.1	10714	283	258	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 1971

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	0	—	0	—	0	—	0	—	5	10	1	17	7	7	9	11	6	9	1	4	0	—	1	4	1	31	9
	1000	2	10	0	—	0	—	0	—	5	10	2	20	4	9	1	28	5	12	6	15	2	17	1	13	1	[illegible]	13
	850	0	—	0	—	1	13	1	4	1	3	1	8	1	19	6	14	4	34	3	30	4	24	5	13	0	30	17
	700	0	—	1	9	1	9	1	23	0	—	0	—	1	14	8	28	3	32	8	25	4	23	3	23	0	30	24
	600	0	—	1	27	1	18	0	—	0	—	0	—	4	33	5	35	4	24	6	31	6	47	2	26	0	29	33
	500	2	42	0	—	0	—	0	—	0	—	0	—	0	—	7	38	4	30	8	38	7	42	1	43	0	29	38
	400	2	44	0	—	0	—	0	—	0	—	0	—	0	—	5	62	6	31	9	49	6	50	1	60	0	29	48
	300	0	—	0	—	0		0	—	0	—	0	—	0	—	0	—	9	53	10	75	5	65	4	81	—	28	67
	250	0	—	0	—	0	—	0		0	—	0	—	0	—	0	—	8	68	12	85	4	73	1	87	0	25	78
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	77	15	90	2	81	1	72	0	22	86
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	77	7	76	0	—	0	—	0	10	76
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	43	2	52	0	—	0	—	0	5	47
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	2	41	0	—	0	—	0	3	38
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	23	1	39	0	—	0	—	0	2	31
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	4	7	0	—	0	—	2	10	2	9	2	10	1	16	3	19	4	15	2	14	5	16	5	8	0	30	12
	1000	3	8	1	8	2	5	0	—	3	12	2	14	2	11	2	25	3	19	3	15	6	19	3	10	0	30	14
	850	1	3	0	—	1	7	0	—	1	6	2	12	3	15	8	14	5	14	4	21	4	15	0	—	0	29	14
	700	0	—	1	5	0	—	0	—	0	—	0	—	7	23	5	23	4	14	4	17	4	22	1	43	0	26	21
	600	0	—	0	—	0	—	0	—	0	—	1	34	5	26	6	38	1	19	4	28	5	26	3	20	0	25	29
	500	1	19	0	—	0	—	0	—	0	—	1	34	6	52	2	36	3	34	6	34	4	45	1	38	0	24	41
	400	0	—	0	—	0	—	0	—	0	—	1	48	2	49	4	66	4	32	7	55	3	36	1	58	0	22	40
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	38	3	45	3	53	10	65	2	56	1	51	0	20	60
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	58	9	88	1	83	0	—	0	14	79
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	99	7	89	1	78	0	—	0	10	90
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	66	5	76	1	71	0	—	0	8	73
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	41	0	—	0	—	0	—	0	1	41
	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 case 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

HELWAN (A) JANUARY 1971

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360°)																								Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		226/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) N	N	(ff) m			
Helwan 0600 U.T.	Surface	1	4	4	7	2	7	6	6	3	6	1	8	1	5	0	-	1	2	0	-	0	-	4	3	7	30	4
	1000	4	9	3	7	2	7	4	6	2	7	0	—	1	1	0	-	1	2	0	—	0	-	3	5	1	21	6
	850	0	—	1	2	0	-	1	17	2	6	3	19	5	15	2	8	5	24	5	19	3	15	3	20	0	30	17
	700	1	13	0	—	0	—	0	—	0	—	3	30	4	14	6	32	2	60	6	29	5	31	3	38	0	30	30
	600	0	—	0	—	0	-	0	-	0	—	2	32	4	26	6	38	2	41	9	41	2	56	3	25	0	28	37
	500	1	4	0	-	0	—	0		0	—	1	21	3	19	5	51	5	37	8	66	4	65	0	—	0	27	48
	400	0	—	0	—	1	12	0	-	0	—	1	1	0	-	3	49	7	47	6	94	1	82	1	15	0	20	57
	300	0	-	0	—	0	—	0	—	1	18	0	—	0	—	0	—	5	73	5	51	0	-	1	11	0	12	46
	250	0	—	0	—	0	—	0	—	0	—	0	—	1	15	0	—	4	90	1	36	0	-	1	24	0	7	62
	200	0	—	0	—	0	—	0	-	0	—	0	-	0	—	0	—	1	61	2	48	1	22	1	19	0	5	40
	150	0	—	0	—	0	-	0	—	0	—	0	—	0	—	0	-	1	75	3	69	1	18	0	-	0	5	60
	100	0	—	0	—	0	—	0		0	—	0	—	0	—	0	-	1	38	1	54	1	38	0	-	0	3	43
	70	0	—	0	—	0	—	0		0	—	0	—		—	0	—	1	15	0	-	0	-	0	-	0	1	15
	60	0	—	0	—	0	—	0		0	—	0	—	0		1	17	0	0	-	-	0	-	0	-	0	1	17
	50	0	-	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	0	—	0	—	0	1	12
	40	1	20	0	—	0	-	0	—	0	—	0	—	0	—	0	-	0	—	0	-	0	-	0	-	0	1	20
	30	1	29	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	-	0	-	0	—	0	1	29
	20	0	—	0	—	0		0	—	0	—	0	—	0	—	0	-	0	-	0	—	0	-	1	14	0	1	14
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	-	—	—	—	—	—	—	—	—	—	—	—	-	—
Helwan 1200 U.T.	Surface	2	5	2	7	0		0	-	1	2	0	—	1	5	6	6	4	6	4	6	2	8	3	4	5	30	5
	1000	1	8	2	9	1	9	0	—	1	2	0	—	1	1	2	8	4	7	3	10	3	3	2	6	0	20	7
	850	0	—	2	17	1	6	0	-	1	3	6	14	2	24	2	41	3	28	3	25	6	14	4	19	0	30	19
	700	0	—	0	—	0	—	1	22	1	11	5	25	3	25	3	27	3	39	3	32	6	18	3	28	0	28	26
	600	0	—	0	—	0	-	0	—	0	—	4	25	6	36	0	—	6	38	3	29	5	58	4	37	0	28	38
	500	0	—	0	—	0	—	0	—	0	-	1	13	4	22	5	53	5	61	5	44	4	52	4	66	0	28	52
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	36	8	84	5	59	2	107	2	76	0	23	67
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	42	5	53	5	94	0	-	0	—	0	12	68
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	90	6	63	0	—	0	—	0	8	70
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	88	2	40	1	70	0	—	0	5	65
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	74	0	—	0	—	0	4	74
	100	0	—	0	-	0	—	0	—	0	—	0	—	0	—	0	-	2	56	1	38	0	—	0	-	0	3	50
	70	0	—	0	-	0	—	0	—	0	-	0	-	0	—	0	—	0	—	1	20	0	—	0	—	0	1	20
	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 SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

ASWAN (A) JANUARY 1971

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000–360)°																								Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
Aswan 0000 UT	Surface	9	9	3	10	3	11	5	13	1	9	0	—	0	—	0	—	0	—	0	—	1	18	5	11	0	27	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	14	4	14	1	4	5	17	2	24	2	11	1	15	0	—	1	6	3	9	2	16	3	17	0	27	14
	700	0	—	0	—	0	—	3	25	2	18	2	12	2	24	0	—	5	13	3	22	6	14	3	20	0	26	18
	600	0	—	0	—	1	26	2	34	1	17	0	—	1	23	2	12	5	29	5	33	5	24	0	—	0	22	26
	500	0	—	0	—	2	39	1	34	0	—	0	—	0	—	2	32	5	45	9	43	0	—	0	—	0	19	41
	400	0	—	2	32	1	57	0	—	0	—	0	—	0	—	0	—	6	67	7	58	0	—	1	11	0	17	57
	300	2	48	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	81	8	81	1	30	1	34	0	15	70
	250	2	34	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	130	4	87	1	70	1	71	0	12	90
	200	1	42	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	120	6	195	2	58	0	—	0	12	95
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	92	5	71	2	43	1	61	0	9	66
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	29	6	31	1	30	0	—	0	8	30
	70	0	—	1	18	1	9	0	—	0	—	0	—	2	14	0	—	1	24	0	—	0	—	1	14	0	6	15
	60	1	10	1	21	0	—	1	17	0	—	2	10	0	—	0	—	0	—	1	35	0	—	0	—	0	6	17
	50	0	—	0	—	1	22	2	16	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	17
	40	1	10	0	—	2	12	1	4	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	16
	30	1	12	1	13	0	—	1	4	0	—	1	9	0	—	0	—	0	—	0	—	0	—	0	—	0	4	10
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	11	11	1	8	2	15	6	9	0	—	1	7	0	—	2	6	1	9	0	—	0	—	2	15	0	26	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	13	2	16	2	20	7	13	2	10	0	—	1	12	0	—	0	—	2	12	2	8	5	10	0	26	12
	700	1	10	0	—	1	9	5	30	0	—	1	16	0	—	3	27	4	18	4	26	4	20	0	—	0	23	23
	600	0	—	1	16	1	46	3	29	1	10	0	—	1	14	1	14	6	33	3	28	1	19	0	—	0	18	27
	500	1	25	0	—	1	35	3	32	0	—	0	—	0	—	1	42	6	39	4	46	0	—	1	2	0	17	36
	400	1	38	2	28	0	—	0	—	0	—	0	—	0	—	0	—	3	45	8	49	0	—	2	14	0	16	40
	300	1	22	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	58	4	67	0	—	4	39	0	12	52
	250	1	21	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	81	2	46	1	58	0	9	64
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	84	3	61	1	58	0	7	70
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	65	2	58	0	—	0	6	62
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	2	31	2	42	0	—	0	5	37
	70	0	—	0	—	0	—	1	5	0	—	1	10	1	11	0	—	0	—	0	—	1	23	0	—	0	4	12
	60	0	—	0	—	1	22	1	20	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	3	18
	50	0	—	0	—	1	11	1	13	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	16
	40	0	—	0	—	0	—	2	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	20
	30	0	—	0	—	0	—	1	27	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	27
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — JANUARY 1971

For the month as a whole, the mean daily values of air temperature and relative humidity were above normal. The monthly total rain-fall was only 1.3 mm. which is remarkably below normal (29.4 mm.).

The month was mainly characterized by two w arm spells in the period (1st—3rd) and on the 17th. The first warm spell was pronounced and yielded the highest maximum air temperature for the month (27.2°C) on the 3rd. Apart from these two warm spells, mild weather prevailed and the daily maximum air temperatures showed small departures from normal.

The extreme maximum soil temperature was 2.6°C lower than the corresponding value of last January at 2 cm. depth, the same at 5 cm. and higher at other depths between 10 and 100 cm. with departures between 1.7°C at 10 cm. and 0.6°C at 50 cm. The extreme minimum soil temperature was the same as last January at 2 cm. depth, higher at 5, 20 & 50 cm. depths with departures between 0.1, 1.3°C and slightly lower than last January (0.3°C) at both 10 and 100 cm. depths.

The daily mean values of actual sunshine duration, Pan evaporation and wind speed at 1.5m. were lower than the corresponding values of January 1970 by 0.4 hour, 5.64 mms. and 0.4 m./sec. respectively.

TAHRIR — JANUARY 1971

For the month as a whole, the daily mean values of air temperature and relative humidity were above normal. The total monthly rainfall was 27.6 mm. which is remarkably above normal (3.4 mm.)

The month was characterized by two pronounced warm spells in the periods (1st—4th) & (6th — 8th), a light warm spell on the 23rd &24th and a cold spell on the 9th & 10th. The first warm spell yielded the highest maximum air temperature (29.8°C) and the lowest relative humidity (26%) on the 3rd. The cold wave was associated with the lowest maximum air temperature (16.1°C) and the maximum daily rainfall (21.4 mm.) on the 9th.

The extreme maximum soil temperatures were lower than the corresponding values of last January at all depths between 2, 100 cm. and the departures varied between 1.3°C at 5 cm. and 0.5°C at 20 cm. The extreme minimum soil temperatures were higher than the corresponding values of last January at 2,5 cm. depths by 3.3°C, 2.4°C respectively. At 10 cm. depth the extreme minimum soil temperature was the same as last January and at deeper depths between 20 & 100 cm it was lower with departures between 1.1°C & 1.8°C.

The daily mean values of actual sunshine duration, Pan evaporation and wind speed at 1.5 m. were all lower than the corresponding values of January 1970 by 0.4 hour, 0.95 mm. and 0.4 m./sec. respectively.

BAHTIM — JANUARY 1971

For the month as a whole, the mean daily air temperature was slightly lower than the corresponding value of last January while the mean daily relative humidity was higher. The total monthly rainfall was 6.6 mm. against 1.4 mm for last January.

The month was mainly characterized by two pronounced warm spells in the periods (1st—3rd) & (6th—8th) and a cold spell in the period (9th—12th). The second warm spell yielded the highest maximum air temperature for the month (29.3°C) on the 7th. The cold spell yielded the lowest maximum air temperature (16.2°C) and the maximum daily rainfall (6.5 mm.) on the 9th.

The extreme maximum soil temperatures were lower than the corresponding values of last January at all depths between 2, 100 cm. with small departures between 0.3° & 0.7°C. The extreme minimum soil temperatures were also lower than the corresponding values of last January except at 50 cm. depth where the values were the same; the departures varied between 1.7°C at 2 cm. and 0.1°C at 20 cm.

The mean daily values of actual sunshine duration, Pan evaporation and wind speed at 1.5 m. were all lower than the corresponding values of January 1970 by 0.2 hour, 0.96 mm. and 0.2 m./sec. respectively.

KHARGA — JANUARY 1971

For the month as a whole, the mean daily values of air temperature and relative humidity were above normal. The month was rainless apart from (trace) on the 9th.

The month was characterized by two warm spells in the periods (1st—8th) & (17th—20th) and two cold spells in the period (9th—14th) and on the 21st. The first warm spell yielded the highest maximum air temperature for the month (33.2°C) and the highest minimum air temperature (17.4°C) on the 5th. The first cold spell was associated with the lowest maximum air temperature (19.0°C) on the 13th.

The extreme maximum soil temperatures were higher than the corresponding values of last January at all depths, apart from the 100cm. depth where it was slightly lower (0.1°C) ; the departures ranged between 4.4°C at 2 cm. and 1.1°C at 50 cm. The extreme minimum soil temperatures were higher than the corresponding values of last January at depths between 2 & 20 cm. and lower at both 50 & 100 cm. depths. The departures were slight and ranged between 0.1°C and 0.5°C.

The mean daily actual sunshine duration was 0.3 hour less than the corresponding value of January 1970 ; while the mean daily Pan evaporation and wind speed at 1.5 m. were more than January 1970. by 1.14 m. and 0.3 m/sec. respectively.

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

JANUARY — 1971

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	−5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
M. Matruh . . .	19.7	9.4	14.1	12.1	16.1	24.0	24.0	24.0	20.6	10.4	0.8	0.1	0.0	0.0	0.0	0.0
Tahrir.	21.8	7.7	13.7	10.9	16.4	24.0	24.0	24.0	17.5	9.0	1.9	0.4	0.0	0.0	0.0	0.0
Bahtim..	21.5	5.9	13.1	9.9	16.2	24.0	24.0	22.8	16.9	8.4	2.1	0.5	0.0	0.0	0.0	0.0
Kharga.	24.9	8.7	16.9	14.0	20.0	24.0	24.0	23.8	20.1	14.7	7.0	2.3	0.5	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 — 1971

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	27.2	3	16.8	24	15.7	7	6.5	31	3.8	19	—	—
Tahrir	29.8	3	16.1	9	14.9	8	4.9	18	3.1	18	—	—
Bahtim	29.3	7	16.2	9	11.9	8	1.0	19	−1.7	19	—	—
Kharga.	33.2	5	19.0	13	17.4	5	2.4	22	0.8	22	—	—

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

JANUARY — 1971

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 . .	—	222.2	320.6	69	70	56	27	19	8.4	8.9	15.0	5	4.3	17	5.1	3.91	1.3	0.5	24
Tahrir.	396.5	225.7	322.8	70	78	54	26	3	9.0	9.3	14.2	8	5.1	24	2.8	2.67	27.6	21.4	9
Bathim.. . . .	297.5	223.8	324.0	69	74	49	28	2	8.2	8.7	13.9	8	4.1	19	3.6	2.67	6.6	6.5	9
Kharga.. . . .	394.7	287.6	334.0	86	47	35	15	5	6.5	7.5	12.5	8	2.5	19	9.4	7.13	Tr.	Tr.	9

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

JANUARY 1971

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	22.9	22.0	20.6	17.8	17.3	18.7	21.4		—	—	—	—	—	—	—	—
	L	6.9	7.7	9.9	13.5	15.5	16.7	19.8		—	—	—	—	—	—	—	—
Tahrir	H	29.3	25.3	21.6	18.9	17.7	18.2	20.3	22.4	—	—	—	—	—	—	—	—
	L	7.8	8.4	8.6	11.6	13.8	16.4	19.0	21.1	—	—	—	—	—	—	—	—
Bahtim	H	30.6	23.9	20.5	19.0	19.8	21.2	24.5	25.5	—	—	—	—	—	—	—	—
	L	5.1	8.3	12.2	15.5	18.6	20.2	23.1	24.6	—	—	—	—	—	—	—	—
Kharga	H	36.5	30.8	27.1	24.2	23.7	24.2	26.8	28.6	—	—	—	—	—	—	—	—
	L	5.5	8.6	13.2	17.4	20.5	23.2	25.7	27.7	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

JANUARY — 1971

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	3.5	2.9	4.2	31	26	14	8	3	0	0	40	10
Tahrir	1.6	1.1	2.0	23	11	2	0	0	0	0	47	9
Bahtim	1.6	1.0	2.2	16	8	1	0	0	0	0	23	9,27
Kharga	2.6	1.8	3.3	27	17	5	1	0	0	0	34	20

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MONTHLY WEATHER REPORT

VOLUME 14 NUMBER 2

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

Orders for publications should be addressed to :

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

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 14 NUMBER 2

FEBRUARY, 1971

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on the tables please refer to Volume 14, Number 1 (January 1971).

GENERAL SUMMARY OF WEATHER CONDITIONS

FEBRUARY 1971

Rather changeable intervened with four moderate cold waves.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather this month was rather cold and dry in general, four moderate cold waves prevailed and were separated by warm periods. The second cold wave was the most excessive and prevailed during the second week.

Weather was light rainy in north of the country and the monthly rainfall was subnormal in general. Local heavy rain was reported on the 4th over few localities in the Mediterranean district.

Light rising sand was reported for few days over scattered places.

PRESSURE DISTRIBUTION

The most outstanding pressure systems over the surface charts during this month were :

— The Siberian anticyclone and its south west extension to East Mediterranean.

— The Atlantic anticyclone and its extensions through Europe and North Africa.

— Deep low pressure systems through North Europe.

— Secondary depressions through the Mediterranean and its vicinities.

— The Sudan monsoon trough.

The Mediterranean Sea area was a cyclogenetic area most of this month, where six secondary depressions originated.

At the beginning of the month, a complex low pressure system appeared over Italy & Central Mediterranean together with a secondary over gulf of Serte. The whole system proceeded slowly eastwards. The coastal depression traversed East Mediterranean on the 3rd while the main depression traversed East Mediterranean on the 7th. The third Mediterranean depression during this month developed over Tunisia on the 10th, it moved to Central Mediterranean on the 11th while the Sudan trough showed a northward elongation, then it proceeded eastwards traversing East Mediterranean on the 12th.

A deep low pressure system appeared over Central Europe on the 16th with a deep southern trough over West Mediterranean. The whole system moved slowly eastwards. The deep Mediterranean trough traversed Asia Minor and Cyprus area on the 22nd.

On the 23rd a shallow Mediterranean depression developed over Central Mediterranean, it moved slowly eastwards and traversed East Mediterranean on the 26th.

The last Mediterranean depression during this month developed over Central Mediterranean on the 27th and proceeded slowly eastwards.

The barometric pressure over the country was accordingly oscillatory and reached pronounced minima round the 4th, 12th, 17th, 22nd and 26th.

At the 700 and 500 mb levels, the characteristic feature was the transit of five upper troughs through East Mediterranean and Egypt on the 4th, 8th, 13th, 23rd, and 28th.

SURFACE WIND

Light to moderate W/SW winds prevailed most of this month in north of the country and changed to W/NW in few days. In the southern parts the prevailing winds were generally light to moderate N/NW. Winds became fresh to strong during several days in scattered places, mainly in the Mediterranean and Red Sea districts.

Gales were reported at Dabaa on the 12th, Abu Sueir and Fayed on the 21st, Hurghada on the 12th and 13th and Abul Kizan on the 13th.

TEMPERATURE

Maximum air temperature this month was changeable with a moderate variability. It was moderately below normal during the cold waves which prevailed round the periods (3rd-5th), (7th-14th), (21st-24th) and (26th-28th), and moderately above normal otherwise. Maximum air temperature ranged generally between 16°C & 22°C in the northern parts, between 18°C and 26°C in the middle parts and between 22°C and 30°C in the southern parts.

The absolute maximum air temperature for the country this month was 34.4°C reported at Aswan on the 25th.

Minimum air temperature fluctuations were more or less similar to fluctuations in maximum air temperature.

Minimum air temperature values ranged most of the month between 6°C and 13°C in the northern and southern parts, and between 3°C and 10°C in the middle parts.

The absolute minimum air temperature for the country this month was 0.8°C reported at Dakhla on the 14th.

PRECIPITATION

Light rain fell over the Mediterranean district in many days of the month and extended in land till Cairo on the 7th and 12th. Rain was locally heavy on the 4th over few localities in the Mediterranean district. The monthly rainfall was subnormal in general.

The maximum daiy rainfall was 25.1 mm reported at Rosetta on the 3rd. The maximum monthly rainfall was 61.5mm. reported at Rosetta.

Cairo, May 1972

Chairman (M. F. TAHA)

Board of Directors

SURFACE DATA

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

FEBRUARY 1971

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	A + B / 2	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	Mean
Sallum	1014.2	−3.1	19.8	+0.1	9.5	−0.2	14.6	14.4	−0.4	9.8	−0.7	51	−3	—	—	—	8.4
Mersa Matruh (A)	1014.2	−2.9	18.8	0.0	9.1	−0.7	14.0	13.6	+0.2	9.8	−1.0	58	−5	194.1	309.5	63	7.6
Alexandria (A)	1014.6	−2.6	19.5	+0.3	9.6	−0.1	14.6	14.2	0.0	10.9	−0.3	64	−4	208.1	310.5	67	4.5
Port Said (A)	1013.7	−3.2	19.6	+1.0	10.2	−1.8	14.9	14.1	−0.7	11.3	−0.7	69	0	223.7	310.5	72	5.1
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1013.9	−3.4	20.1	−0.8	7.2	+0.6	13.6	13.1	−0.3	9.6	−0.3	61	−5	221.2	310.9	71	4.0
Cairo (A)	1015.0	−2.4	20.7	+0.1	10.1	+0.7	15.4	15.2	+0.4	9.9	+0.6	46	−9	—	—	—	12.7
Fayoum	—	—	22.5	+0.5	6.2	−1.2	14.4	13.6	−0.7	9.8	0.0	58	+6	—	—	—	4.8
Minya (A)	1015.4	−2.3	22.4	0.0	5.8	+0.6	14.1	13.7	+0.4	8.7	−0.2	46	−7	272.8	312.1	87	7.1
Assyout (A)	1015.5	−1.7	22.5	−0.1	8.1	+0.6	15.3	14.9	−0.2	9.0	−0.2	40	−1	—	—	—	10.6
Luxor (A)	1015.1	−1.0	25.5	+0.3	6.6	−0.1	16.0	15.6	−0.3	9.9	−0.1	43	+1	—	—	—	6.2
Aswan (A)	1014.8	−0.8	25.9	+0.1	9.4	+0.2	17.6	17.4	−0.1	9.3	+0.3	26	+2	—	—	—	14.9
Siwa	1015.3	−2.4	21.6	−0.1	6.3	+0.6	14.0	13.8	−0.1	8.7	+0.1	46	+2	253.4	312.5	81	7.8
Bahariya	1015.6	−1.5	22.4	+0.2	6.8	+0.5	14.6	14.3	+0.6	8.2	−0.2	37	−7	—	—	—	6.9
Farafra	1017.6	−1.9	22.5	+0.1	5.9	+0.5	14.2	14.2	+0.2	8.2	+0.8	37	−3	—	—	—	9.8
Dakhla	1016.5	−1.5	23.6	−0.1	5.1	−0.6	14.4	14.2	+0.6	7.9	−0.5	34	−2	—	—	—	9.8
Kharga	1015.7	−1.3	24.4	0.0	6.7	−0.4	15.6	15.9	+0.7	9.0	+0.3	38	0	289.4	316.1	92	9.8
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1014.6	−1.0	29.4	−1.2	9.7	−0.2	16.0	16.4	−0.1	11.0	−0.2	47	−1	274.4	314.8	87	9.8
Quseir	1014.3	−1.2	22.4	−0.6	13.7	−0.6	18.0	18.3	0.0	12.4	0.0	46	+1	—	—	—	10.6

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

FERUARY — 1971

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature °C							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	Dev. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					>25	>30	>35	>40	>45							<10	<5	<0	<-5
Sallum	25.6	20	14.9	12	1	0	0	0	0	8.9	—	12.3	16	7.3	9	19	0	0	0
Mersa Matruh (A)	23.4	20	14.1	12	0	0	0	0	0	7.6	—	10.6	16	7.0	11	22	0	0	0
Alexandria (A)	24.2	18,20	15.0	4	0	0	0	0	0	9.6	—	12.9	26	5.6	2	16	0	0	0
Port Said (A)	23.3	18	15.3	13	0	0	0	0	0	9.7	—	12.9	21	7.3	15	13	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	25.8	17	15.3	13	2	0	0	0	0	—	—	11.1	22	3.4	15	27	2	0	0
Cairo	27.5	25	15.4	13	2	0	0	0	0	—	—	15.6	21	6.4	1	14	0	0	0
Fayoum	26.9	25	16.7	13	4	0	0	0	0	2.4	—	9.6	19	3.2	6	28	8	0	0
Minya (A)	29.2	25	17.4	13	4	0	0	0	0	3.7	—	10.0	21	3.0	14	27	10	0	0
Assyout (A)	31.3	25	16.5	13	6	1	0	0	0	5.2	—	11.7	18	4.9	13	24	1	0	0
Luxor (A)	31.6	21	19.2	13	13	2	0	0	0	3.3	—	10.0	19	3.4	8	27	4	0	0
Aswan (A)	34.4	25	18.1	13	16	4	0	0	0	—	—	14.0	25	5.4	14	15	0	0	0
Siwa	27.9	16	16.0	4	3	0	0	0	0	5.6	—	14.3	16	2.5	9	26	9	0	0
Bahariya	29.7	25	16.9	13	8	0	0	0	0	5.6	—	12.3	16	2.1	6	25	9	0	0
Farafra	30.6	25	16.4	13	8	1	0	0	0	5.2	—	13.0	26	1.7	24	25	11	0	0
Dakhla	31.7	25	17.3	13	10	1	0	0	0	4.8	—	9.8	18	0.8	14	28	11	0	0
Kharga	30.0	21-25	17.6	13	12	0	0	0	0	4.0	—	10.6	18,19	1.8	6	25	5	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	25.6	26	17.4	13	2	0	0	0	0	—	—	13.0	27	5.9	14	16	0	0	0
Qusier	25.4	7.21	18.2	14	3	0	0	0	0	10.9	—	16.1	22	11.0	14	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

FEBRUARY – 1971

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 Amount	Max. Fall in one day Date	Number of Days with Amount of Rain <0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	3.6	2.5	3.9	3.8	3.4	5.1	— 6.4	2.0	12	0	7	2	0	0	0	0
Mersa Matruh (A)	2.5	3.6	4.0	2.9	3.3	12.6	— 5.1	3.0	7	2	11	5	0	0	0	0
Alexandria (A)	4.5	4.2	4.1	4.1	4.1	37.2	+ 5.9	18.8	4	2	11	7	2	1	0	0
Port Said (A)	2.4	2.8	3.3	2.2	2.6	2.2	— 9.8	0.7	12	0	4	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1.2	2.2	3.6	1.6	2.2	1.1	— 6.8	0.5	8	0	3	0	0	0	0	0
Cairo (A)	0.6	1.8	3.3	2.0	2.0	0.8	— 3.9	0.8	12	2	1	0	0	0	0	0
Fayoum	—	1.4	2.5	1.5	—	0.0	— 1.4	0.0	—	0	0	0	0	0	0	0
Minya (A)	1.0	0.9	1.6	1.3	1.2	Trace	— 1.2	Trace	4	1	0	0	0	0	0	0
Assyout (A)	0.4	0.7	0.9	0.7	0.6	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.6	1.2	0.7	0.8	0.8	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.1	0.9	0.7	0.4	0.5	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	1.8	1.7	3.4	1.8	2.1	0.6	— 1.9	0.6	4	0	1	0	0	0	0	0
Bahariya	0.9	1.1	2.0	1.5	1.5	0.7	— 0.5	0.7	4	0	1	0	0	0	0	0
Farafra	—	0.6	1.4	1.4	—	0.0	—Trace	0.0	—	0	0	0	0	0	0	0
Dakhla	1.2	0.5	0.3	0.2	0.5	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Kharga	0.5	0.8	0.8	0.4	0.6	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.2	2.6	2.3	1.5	1.9	0.0	—Trace	0.0	—	0	0	0	0	0	0	0
Quseir	1.0	1.5	1.4	0.8	1.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0

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

FEBRUARY 1971

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 Metres	Fog Vis < 10000 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	4	0	0	7	1
Mersa Matruh (A)	11	0	0	0	0	1	2	0	0	0	8	3	0	8	1
Alexandria (A)	11	0	0	0	0	2	0	2	0	0	2	2	0	6	6
Port Said (A)	4	0	0	0	0	0	2	0	0	0	4	0	0	12	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	3	0	0	0	0	0	3	0	1	0	3	0	0	12	0
Cairo (A)	1	0	0	0	0	0	2	1	9	0	8	1	0	16	0
Fayoum	0	0	0	0	0	0	1	0	2	0	2	0	0	—	—
Minya (A)	0	0	0	0	0	0	1	0	9	0	2	0	0	19	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	2	0	0	26	0
Luxor (A)	0	0	0	0	0	0	0	0	19	0	8	1	0	23	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	6	0	0	25	0
Siwa	1	0	0	0	0	0	0	0	0	0	8	0	0	12	0
Bahariya	1	0	0	0	0	0	0	0	0	0	5	0	0	19	0
Farafra	0	0	0	0	0	0	0	0	0	0	6	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	1	0	2	0	0	27	0
Kharga	0	0	0	0	0	0	0	0	0	0	2	0	0	27	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	7	0	2	19	0
Quseir	0	0	0	0	0	0	0	0	0	0	2	0	0	21	0

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

FEBRUARY — 1971

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	044/074	075/104	105/134	135/164	165/194	195/224	225/254	255/284	285/314	315/344	
Sallum	3	0	0	1-10	8	5	8	9	17	10	16	19	42	44	65	48	291
				11-27	0	3	11	13	3	0	2	19	62	159	93	10	375
				28-47	0	0	0	0	0	0	0	0	0	0	3	0	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**8**	**8**	**19**	**22**	**20**	**10**	**18**	**38**	**104**	**203**	**161**	**58**	**669**
Mersa Matruh	1	0	0	1-10	1	3	4	7	16	17	17	37	21	10	11	12	156
				11-27	6	2	17	13	19	23	37	57	145	80	47	41	487
				28-47	2	0	0	0	0	0	0	0	4	12	4	6	28
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**9**	**5**	**21**	**20**	**35**	**40**	**54**	**94**	**170**	**102**	**62**	**59**	**671**
Alexandria	0	0	0	1-10	13	10	20	23	44	46	51	61	17	17	41	53	396
				11-27	6	3	0	5	5	2	6	31	81	85	24	27	275
				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	**19**	**13**	**20**	**28**	**49**	**48**	**57**	**92**	**99**	**102**	**65**	**80**	**672**
Port Said	19	0	0	1-10	19	17	18	74	29	22	18	57	115	136	26	25	556
				11-27	8	3	0	3	1	0	0	7	38	36	1	0	97
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**27**	**20**	**18**	**77**	**30**	**22**	**18**	**64**	**153**	**172**	**27**	**25**	**653**
Tanta	6	0	0	1-10	23	18	18	39	35	28	52	84	88	56	30	24	495
				11-27	4	4	0	6	5	1	1	11	59	50	17	13	171
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**27**	**22**	**18**	**45**	**40**	**29**	**53**	**95**	**147**	**106**	**47**	**37**	**666**
Cairo	52	1	114	1-10	11	23	22	15	22	40	47	51	23	24	30	19	327
				11-27	5	3	1	0	5	10	21	51	39	29	5	5	174
				28-47	0	0	0	0	0	0	0	0	2	2	0	0	4
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**16**	**26**	**23**	**15**	**27**	**50**	**68**	**102**	**64**	**55**	**35**	**24**	**505**
Fayoum	8	6	0	1-10	34	57	17	15	19	46	56	110	103	55	40	44	596
				1-27	0	2	0	0	0	0	3	6	14	35	0	2	62
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**34**	**59**	**17**	**15**	**19**	**46**	**59**	**116**	**117**	**90**	**40**	**46**	**658**
Minya	25	0	2	1-10	109	35	5	5	3	60	111	36	18	55	54	87	578
				11-27	18	0	0	0	0	1	3	0	0	4	30	11	67
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**127**	**35**	**5**	**5**	**3**	**61**	**114**	**36**	**18**	**59**	**84**	**98**	**645**

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

FEBRUARY — 1971

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												
					345 / 014	015 / 044	845 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions
Assyout	33	1	35	1-10	30	9	17	25	46	36	18	10	21	96	75	44	427
				11-27	19	0	0	0	2	6	10	6	5	18	41	69	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	**49**	**9**	**17**	**25**	**48**	**42**	**28**	**16**	**26**	**114**	**116**	**113**	**603**
Luxor	30	0	0	1-10	50	37	34	41	40	49	57	26	40	61	75	93	603
				11-27	1	0	0	0	0	1	0	0	4	6	13	14	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	**51**	**37**	**34**	**41**	**40**	**50**	**57**	**26**	**44**	**67**	**88**	**107**	**642**
Aswan	3	0	0	1-10	238	45	7	2	1	3	5	4	3	10	21	86	425
				11-27	118	8	0	0	0	0	0	0	0	7	26	85	244
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**356**	**53**	**7**	**2**	**1**	**3**	**5**	**4**	**3**	**17**	**47**	**171**	**669**
Siwa	38	4	0	1-10	10	7	7	28	43	30	20	20	36	148	67	32	448
				11-27	1	9	0	1	10	11	14	8	14	46	55	13	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	**11**	**16**	**7**	**29**	**53**	**41**	**34**	**28**	**50**	**194**	**122**	**45**	**630**
Farafra	17	9	1	1-10	28	21	35	41	50	28	43	26	49	93	110	70	594
				11-27	0	0	0	0	0	0	0	0	0	2	21	28	51
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**28**	**21**	**35**	**41**	**50**	**28**	**43**	**26**	**49**	**95**	**131**	**98**	**645**
Kharga	4	0	1	1-10	146	79	30	20	16	21	19	13	15	33	70	108	570
				11-27	57	7	0	0	0	0	0	0	1	1	10	21	97
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**203**	**86**	**30**	**20**	**16**	**21**	**19**	**13**	**16**	**34**	**80**	**129**	**667**
Hurghada	20	1	0	1-10	14	22	21	10	13	20	11	8	13	34	113	36	315
				11-27	93	9	0	0	0	9	0	0	0	6	93	105	315
				28-47	0	0	0	0	0	0	0	0	0	0	0	21	21
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**107**	**31**	**21**	**10**	**13**	**29**	**11**	**8**	**13**	**40**	**206**	**162**	**651**
Qusseir	4	0	1	1-10	46	28	46	41	19	14	22	16	16	24	96	143	511
				11-27	52	58	29	0	0	0	4	0	0	0	2	6	151
				28-47	1	4	0	0	0	0	0	0	0	0	0	0	5
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**99**	**90**	**75**	**41**	**19**	**14**	**26**	**16**	**16**	**24**	**98**	**149**	**667**

UPPER AIR CLIMATOLOGICAL DATA

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

FEBRUARY 1971

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	25	* 1014m.b.	* 1020m.b.	* 1006m.b.	25	11.6	14.2	8.2	25	6.1
	1000	24	140	193	96	24	13.0	16.5	9.0	24	6.6
	850	25	1489	1532	1415	25	4.2	11.5	— 1.4	24	— 2.5
	700	23	3048	3101	2959	23	— 3.7	3.7	— 8.1	23	—15.4
	600	23	4251	4332	4142	23	—10.8	— 5.5	—16.5	23	—22.1
	500	22	5631	5737	5488	22	—21.0	—15.5	—26.8	21	—31.8
	400	20	7244	7376	7065	20	—32.6	—28.4	—39.0	20	—42.5
	300	21	9221	9356	8985	21	—44.3	—37.6	—50.6	19	—53.8
	250	20	10430	10546	10173	20	—49.5	—36.9	—57.1	19	—58.5
	200	19	11883	12048	11626	19	—53.6	—47.3	—60.4	12	—62.3
	150	14	13725	13904	13474	14	—60.0	—55.5	—64.2	2	—67.2
	100	8	16196	16313	16026	8	—66.4	—58.7	—72.4	—	—
	70	4	18323	18392	18272	4	—67.8	—61.4	—77.7	—	—
	60	2	19270	19340	19200	2	—64.7	—63.6	—65.8	—	—
	50	2	20388	20434	20341	2	—63.5	—63.1	—63.9	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 UT	Surface	26	* 998m.b.	* 1005m.b.	* 992m.b.	26	11.4	17.5	8.4	26	2.6
	1000	26	127	181	74	10	10.4	12.4	8.4	10	4.2
	850	26	1475	1533	1413	26	5.7	14.3	— 0.9	26	— 4.9
	700	26	3042	3140	2948	26	— 2.2	4.6	— 8.0	26	—16.3
	600	26	4251	4382	4133	26	—10.0	— 4.3	—16.2	26	—22.6
	500	26	5633	5791	5487	26	—19.4	—14.6	—25.4	26	—32.4
	400	26	7255	7441	7066	26	—30.4	—23.9	—38.5	26	—42.4
	300	26	9247	9464	8996	25	—42.7	—34.9	—50.0	25	—53.9
	250	25	10461	10677	10187	25	—48.9	—38.7	—57.0	25	—59.2
	200	24	11905	12089	11645	24	—54.1	—47.0	—63.3	22	—63.0
	150	21	13723	13884	13509	21	—61.2	—54.1	—67.1	7	—65.9
	100	17	16194	16306	16019	17	—68.7	—62.3	—75.7	—	—
	70	14	18329	18422	18189	14	—66.5	—61.3	—71.7	—	—
	60	12	19319	19390	19200	12	—65.7	—60.0	—69.8	—	—
	50	12	20394	20457	20312	12	—63.3	—57.0	—71.0	—	—
	40	9	21830	21950	21500	9	—61.1	—56.3	—63.5	—	—
	30	8	23592	23662	23542	8	—58.7	—55.0	—61.9	—	—
	20	6	26173	26245	26087	6	—53.7	—44.0	—63.3	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 UT	Surface	28	* 991m.b.	* 994m.b.	* 987m.b.	28	13.1	19.0	9.0	28	—1.0
	1000	27	114	143	82	—	—	—	—	—	—
	850	27	1486	1526	1450	27	12.0	19.0	3.8	27	—5.9
	700	27	3092	3150	3026	27	4.8	8.0	— 1.5	27	—13.8
	600	27	4336	4402	4244	27	— 2.4	2.5	— 7.1	27	—19.2
	500	27	5762	5846	5645	27	—11.1	—7.1	—15.2	27	—26.7
	400	27	7443	7528	7302	27	—22.6	—19.5	—26.1	27	—35.7
	300	27	9494	9594	9340	27	—37.5	—32.5	—43.9	29	—45.2
	250	27	10736	10858	10564	27	—41.1	—39.9	—51.0	27	—55.1
	200	27	12201	12342	12024	27	—54.2	—49.6	—58.1	27	—63.7
	150	27	14004	14160	13836	27	—66.2	—58.9	—69.7	1	—68.3
	100	26	16408	16580	16257	26	—76.0	—68.1	—82.8	—	—
	70	18	18484	18772	18329	18	—73.2	—67.8	—79.3	—	—
	60	9	19467	19670	19340	9	—66.8	—61.9	—72.5	—	—
	50	9	20536	20752	20395	9	—63.0	—54.4	—70.8	—	—
	40	4	22020	22130	21900	4	—61.1	—58.8	—62.7	—	—
	30	4	23702	23831	23569	4	—60.6	—56.7	—63.6	—	—
	20	4	26276	26441	26127	4	—51.8	—46.0	—58.0	—	—
	10	1	31091	—	—	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.

UPPER AIR CLIMATOLOGICAL DATA

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

FEBRUARY 1971

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 UT	Surface	28	1013m.b.*	1020m.b.*	1005m.b.*	28	17.2	23.0	13.0	28	7.8
	1000	28	133	187	71	28	16.1	22.5	11.6	28	6.6
	850	28	1487	1536	1429	28	4.2	11.2	1.5	28	-4.0
	700	28	3046	3114	2959	28	-3.9	3.6	10.0	28	-15.8
	600	27	4247	4344	4135	27	11.8	-5.8	17.4	27	-23.4
	500	27	5620	5749	5478	27	-21.3	-15.5	27.4	25	-31.9
	400	27	7233	7396	7048	27	-32.5	-27.5	-40.0	23	-42.1
	300	21	9211	9407	8962	21	-44.1	-31.5	51.0	20	-52.9
	250	21	10419	10618	10152	21	-49.7	-38.2	-57.0	20	-58.1
	200	20	11867	12060	11605	20	55.0	-46.0	-64.3	14	-62.0
	150	13	13692	13926	13477	13	-58.7	54.1	65.4	4	-63.6
	100	8	16178	16331	16057	8	-65.8	-59.3	73.1	1	-67.2
	70	4	18536	18457	18266	4	-65.0	-61.6	69.8	—	—
	60	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	28	999m.b.*	1004m.b.*	992m.b.*	28	19.3	25.3	13.4	28	2.1
	1000	28	124	174	74	11	18.1	21.3	13.2	11	2.3
	850	28	1485	1524	1435	27	5.8	14.0	-0.8	27	-5.6
	700	28	3054	3139	2967	28	-1.5	6.0	9.2	28	-18.1
	600	28	4266	4382	4140	28	-9.2	-2.0	17.5	28	-24.8
	500	28	5652	5804	5480	28	-18.6	-12.8	26.8	28	-33.9
	400	28	7282	7469	7055	28	-29.6	-24.4	35.5	28	-44.1
	300	28	9282	9503	9043	28	-42.4	-34.0	48.9	28	-55.3
	250	27	10495	10726	10247	27	-47.8	-39.1	56.2	27	-59.8
	200	25	11952	12173	11699	25	-53.2	-44.2	62.0	24	-64.6
	150	23	13773	14003	13545	23	-60.0	-54.1	67.0	11	-67.5
	100	14	16242	16463	16078	14	-66.5	-60.5	73.1	—	—
	70	11	18401	18573	18273	11	-65.4	-59.9	70.6	—	—
	60	9	19344	19506	19240	9	-63.0	-59.9	67.2	—	—
	50	9	20463	20630	20354	9	-60.4	-56.0	66.5	—	—
	40	4	21962	22120	21840	4	-57.5	-53.1	62.1	—	—
	30	4	23703	23900	23568	4	-55.3	-50.1	57.9	—	—
	20	3	26344	26500	26186	3	-52.4	-52.1	-52.8	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	28	990m.b.*	994m.b.*	984m.b.*	28	23.9	31.5	16.5	28	0.6
	1000	28	105	140	51	—	—	—	—	—	—
	850	28	1491	1516	1442	28	12.2	20.5	4.0	28	-8.7
	700	26	3101	3150	3019	26	5.0	9.3	1.0	26	-15.7
	600	26	4343	4400	4241	26	-2.8	0.7	6.5	26	-21.5
	500	26	5769	5817	5646	26	-11.0	-7.5	16.0	26	-27.6
	400	23	7418	7534	7310	23	-21.9	19.4	28.0	23	-37.8
	300	21	9510	9626	9343	21	-35.9	-26.7	40.4	21	-49.9
	250	21	10754	10887	10556	21	-44.6	-39.9	51.5	20	-57.4
	200	20	12219	12366	12011	20	-53.7	-49.7	58.3	17	-65.3
	150	17	14029	14167	13831	17	-65.0	-59.7	69.2	1	-72.8
	100	15	16428	16556	16237	15	-75.5	70.8	81.1	—	—
	70	10	18511	18628	18344	10	-73.0	-68.3	76.0	—	—
	60	5	19488	19560	19430	5	-67.4	-64.9	69.3	—	—
	50	5	20514	20627	20499	5	-62.0	-59.4	64.8	—	—
	40	1	22139	—	—	1	58.0	—	—	—	—
	30	1	23875	—	—	1	-50.4	—	—	—	—
	20	1	26515	—	—	1	-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.

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

FEBRUARY — 1971

	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 (or 0—360)°	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh.	2171 (24)	784 (24)	— 6.9 (24)	3640	656	—14.6	1330	869	—22.0	10405 (10)	254 (10)	54.0 (10)	13080	167	63.8	8420	340	—38.7	8786	318	265	150
	Helwan. . . .	2368 (26)	765 (26)	— 8.2 (26)	3870	640	—15.8	1320	862	—4.6	13023 (15)	185 (15)	61.2 (15)	18170	73	—68.9	7940	362	—34.7	9460	304	250	150
	Aswan.	3878 (27)	633 (27)	—17.5 (27)	4700	579	—16.3	2700	732	—22.1	15923 (13)	110 (13)	75.4 (13)	17630	83	—78.8	14400	138	—70.0	11063	233	290	152
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh.	2277 (28)	774 (28)	— 8.9 (28)	3670	652	—11.0	1250	874	— 2.7	9135 (15)	287 (15)	—49.9 (15)	12240	193	—66.1	7080	409	—35.2	10434	249	260	180
	Helwan. . . .	2616 (28)	743 (28)	—13.1 (28)	4150	619	—17.6	1350	860	— 9.2	11832 (16)	215 (16)	—56.9 (16)	18150	73	—69.8	8870	318	—40.9	9860	285	285	139
	Aswan.	3904 (26)	634 (26)	—19.3 (26)	4500	593	—14.6	3170	687	—21.4	14909 (10)	135 (10)	—68.6 (10)	17090	90	—76.1	10600	247	—51.9	9320	298	300	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) FEBRUARY 1971

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	0	—	0	—	1	11	1	9	1	13	2	8	4	8	5	10	9	16	1	9	0	—	1	26	0	25	12
	1000	0	—	0	—	1	15	0	—	2	16	1	20	1	9	4	15	5	18	7	23	2	11	1	25	0	24	18
	850	2	25	0	—	0	—	0	—	0	—	0	—	1	19	7	25	2	16	8	20	4	27	1	24	0	25	23
	700	1	48	0	—	0	—	0	—	0	—	0	—	0	—	1	38	9	3	6	34	6	32	0	—	0	23	34
	600	1	33	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	48	12	38	6	45	0	—	0	23	42
	500	1	52	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	5[illegible]	12	51	4	46	0	—	0	22	52
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	84	9	77	5	59	1	51	0	20	73
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	100	8	87	4	94	1	51	0	18	90
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	105	6	104	2	112	0	—	0	12	106
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	115	5	129	0	—	0	—	0	6	127
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	80	0	—	0	1	80
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	36	0	—	0	—	0	1	36
	70	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	2	19	0	—	0	—	2	17	1	10	0	—	5	14	0	—	4	21	4	25	9	18	1	20	0	28	19
	1000	2	24	1	9	0	—	1	14	1	22	1	10	3	20	2	14	2	21	5	29	8	23	2	20	0	28	21
	850	2	28	0	—	0	—	0	—	0	—	0	—	2	19	4	10	4	23	8	28	6	22	2	28	0	28	22
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	37	5	34	11	35	6	28	3	27	0	28	33
	600	0	—	0	—	0	—	0	—	0	—	0	—	6	—	2	31	7	48	12	42	3	31	3	34	0	27	42
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	55	9	52	6	54	2	64	0	26	53
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	85	13	63	3	62	2	46	0	23	66
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	90	12	86	3	79	1	86	0	19	85
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	99	10	105	2	94	1	140	0	16	105
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	120	4	96	1	149	1	119	0	7	111
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	103	1	75	0	—	0	4	96
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	58	0	—	0	—	0	2	58
	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 case the wind has been observed during the month.

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

HELWAN (A) FEBRUARY 1971

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360)°																								Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
Helwan 0000 UT	Surface	2	4	3	6	1	5	5	9	4	6	2	6	1	3	2	6	0	—	1	4	1	5	0	—	4	26	5
	1000	3	7	2	4	0	—	2	10	0	—	0	—	1	3	0	—	0	—	0	—	0	—	0	—	2	10	5
	850	0	—	0	—	1	20	0	—	0	—	0	—	2	24	6	28	3	25	6	29	4	21	3	29	0	25	26
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	44	6	33	8	43	4	32	3	37	0	23	39
	600	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	49	7	57	5	50	2	36	0	21	48
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	76	6	50	4	65	0	—	0	14	63
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	84	3	72	3	90	0	—	0	8	82
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	114	1	114	2	102	0	—	0	4	115
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	112	1	130	0	—	0	2	121
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	1	16	1	13	0	—	0	—	2	11	2	12	3	10	4	8	3	18	6	9	1	5	3	11	2	28	10
	1000	0	—	1	13	0	—	0	—	0	—	1	12	0	—	1	6	0	—	2	12	2	9	2	12	2	11	9
	850	1	10	0	—	0	—	0	—	0	—	0	—	0	—	5	23	5	32	6	20	5	22	3	17	1	26	23
	700	0	—	0	—	0	—	1	24	0	—	0	—	1	18	1	19	8	44	10	48	3	15	1	83	—	25	41
	600	0	—	0	—	0	—	1	51	0	—	0	—	1	16	1	82	9	55	10	70	1	32	1	59	—	24	61
	500	0	—	0	—	0	—	1	58	0	—	0	—	0	—	0	—	4	62	8	74	1	33	0	—	—	14	67
	400	0	—	0	—	0	—	0	—	1	70	0	—	0	—	0	—	3	67	2	92	1	127	0	—	—	7	83
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	1	123	0	—	—	2	74
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	21	1	134	0	—	—	2	78
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

ASWAN (A) FEBRUARY 1971

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000°–360°)																								Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345–014		015–044		045–074		075–104		105–134		135–164		165–194		195–224		226–254		255–284		285–314		315–344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) N	N	(ff) m			
Aswan 0000 U.T.	Surface	10	9	4	10	0	—	0	—	2	7	6	—	0	—	0	—	0	—	0	—	1	15	5	11	0	28	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	4	10	6	10	1	15	1	2	1	4	0	—	0	—	0	—	1	8	3	7	6	12	4	20	0	27	11
	700	0	—	0	—	1	7	0	—	0	—	1	11	0	—	1	10	2	11	14	26	7	20	1	3	0	27	21
	600	0	—	1	16	0	—	0	—	0	—	0	—	0	—	2	12	2	54	21	31	1	3	0	—	0	27	33
	500	1	16	0	—	0	—	0	—	0	—	0	—	0	—	1	48	5	60	16	53	4	54	0	—	0	27	53
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	72	17	74	2	56	1	37	0	27	71
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	87	12	73	6	89	1	52	0	26	80
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	81	14	96	5	89	1	60	0	25	90
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	81	13	98	5	85	0	—	0	24	91
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	42	4	81	12	86	2	74	0	—	0	19	81
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	29	5	47	2	64	0	—	0	8	49
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	34	2	40	0	—	0	4	37
	60	0	—	0	—	0	—	0	—	0	—	0	—	1	11	0	—	0	—	0	—	2	42	0	—	0	3	32
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	41	0	—	0	2	41
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	38	0	—	0	1	38
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface	10	12	6	8	0	—	0	—	0	—	1	5	0	—	1	16	1	15	0	—	2	8	7	12	0	28	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	6	9	1	12	5	8	1	12	0	—	0	—	0	—	0	—	1	10	4	13	5	10	5	18	0	28	11
	700	1	5	1	13	0	—	0	—	0	—	0	—	0	—	0	—	4	2	10	23	7	16	3	26	0	26	20
	600	1	7	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	46	21	30	2	42	0	—	0	26	32
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	45	19	56	1	50	1	19	0	26	52
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	77	16	75	1	84	1	32	0	23	74
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	81	12	87	5	99	0	—	0	21	89
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	84	11	91	4	104	0	—	0	20	92
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	82	10	99	2	96	0	—	0	19	93
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	72	8	74	2	79	0	—	0	14	74
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	44	2	48	2	48	0	—	0	8	76
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	34	1	34	1	24	0	3	31
	60	1	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	21	0	—	0	2	14
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	—	—
	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.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH – FEBRUARY 1971

This month was rather normal with respect to the mean daily values of air temperature and relative humidity. The total monthly rainfall was below normal.

The month was intervened with three light cold spells on the 4th, 8th and in the period (11th—13th) and four light warm spells in the periods (16th, 17th), 20th (24th, 25th) and 28th. The highest maximum air temperature for the month (23.4°C) was reported on the 20th. The lowest maximum air temperature (14.1°C) was reported on the 12th.

The extreme maximum soil temperatures were lower than the corresponding values of last February at all depths apart from 100 cm. depth where the values were the same : the departures varied between 5.6°C at 2 cm. and 0.8°C at 50cm. The extreme minimum soil temperatures were higher than the corresponding values of last February at shallow depths between 2 & 10 cm. with departures between 1.4°C and 0.1°C. At 20, 100 cm. depths the extreme soil minima were lower than last February by 1.4° & 0.7°C respectively, and at 50 cm. depth the values were the same.

The mean daily values of actual sunshine duration and Pan evaporation were lower than the coresponding values of February 1970 by 1.6 hour& 3.22 mm. respectively ; while the mean daily wind speed at 1.5 m. was higher by 1.2 m/sec.

TAHRIR — FEBRUARY 1971

For the month as a whole, the mean daily air temperature was normal and the mean daily relative humidity was slightly below normal. The total monthly rainfall was only 0.2 mm. against 6.7 mm. for normal.

The month was characterized with three warm spells on the 2nd, in the period (16th—20th) & on the 25th and a cold spell on the 12th & 13th. The highest maximum air temperature for the month (26.5°C) was reported on the 17th. The lowest maximum air temperature (16.2°C) was reported on the 13th.

The extreme maximum soil temperatures were markedly lower than the corresponding values of last February with departures between 7.0°C at 2 cm. and 0.7°C at 100 cm. The extreme minimum soil temperatures were slightly higher (0.5°C) than last February at both 2 & 5 cm. depths : and lower at deeper depths between 10 & 100 cm. with departures between 0.6°C at 10 cm. and 2.1°C at 20 cm.

The mean daily actual sunshine duration was lower than the corresponding values of February 1970 by 0.5 hour ; while the mean daily Pan evaporation and wind speed at 1.5 m. were higher by 0.47 mm. and 0.7 m./sec. respectively.

BAHTIM — FEBRUARY 1971

For the month as a whole, the mean daily air temperature and relative humidity were slightly lower than the corresponding values of last February ; and total monthly rainfall was slightly higher.

The month was characterized with four short warm spells on the 2nd. in the period (16th—18th), on the 20th & 25th and a cold spell in the period (11th—14th). The highest maximum air temperature (26.6°C) occurred on the 25th, and the lowest maximum air temperature (15.4°C) occurred on the 13th. Minimum air temperature at 5 cm. above ground fell below 0°C on the 6th and 15th when its values were — 1.0°C and — 0.3°C respectively.

The extreme maximum soil temperatures were lower than the corresponding values of last February at all depths between 2, 100 cm. with departures between 1.6°C at 5 cm. and 0.3°C at 50 cm. The extreme minimum soil temperatures were also lower than last February at all depths with slight departures between 0.3° & 0.8°C.

The mean daily actual sunshine duration was the same as the corresponding value of February 1970 ; while the mean daily Pan evaporation and wind speed at 1.5 m. were higher by 0.68 mm. and 0.4 m./sec. respectively.

KHARGA — FEBRUARY 1971

This month was rainless and its mean daily air temperatures was slightly above normal.

The month was intervened with four warm spells in the periods (1st. 2nd), (17th. 18th). (20th. 21st and on the 25th : and five light cold spells on the 4th. in the periods (7th—10th), (13th—15th). (22nd-23rd) and (27th. 28th). The highest maximum air temperature for the month (30.0°C) occurred on both the 21st & 25th. The lowest maximum air temperature (17.6°C) occurred on the 13th.

The extreme maximum and minimum soil temperatures were lower than the corresponding values of last February at all depths between 2 & 100 cm. The departures for the extreme maxima ranged between 4.4°C at 10 cm. and 0.4°C at 100 cm. The departures for the extreme minima varied between 1.1°C at 10 cm. and 0.2°C at 20 cm.

The mean daily values of actual sunshine duration, Pan evaporation and wind speed at 1.5 m. were all lower than the corresponding values of February 1970 by 0.2 hour, 1.33 mm. and 0.4 m./sec. respectively.

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

FEBRUARY — 1971

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 . . .	18.8	9.1	13.6	11.8	15.5	24.0	24.0	24.0	20.6	7.6	0.9	0.0	0.0	0.0	0.0	0.0
Tahrir.	21.4	7.5	13.8	11.0	16.9	24.0	24.0	23.9	18.3	9.0	2.4	0.1	0.0	0.0	0.0	0.0
Bahtim..	20.9	6.5	13.4	10.3	16.6	24.0	24.0	23.3	17.6	8.7	2.2	0.1	0.0	0.0	0.0	0.0
Kharga.	24.4	6.7	16.0	12.4	19.6	24.0	24.0	23.7	19.2	12.8	6.3	1.8	0.0	0.0	0.0	0.0

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

FEBRUARY — 1971

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	23.4	20	14.1	12	10.6	16	7.0	11	3.6	1	—	—
Tahrir	26.5	17	16.2	13	11.2	26	4.1	11	3.0	14	—	—
Bahtim	26.6	25	15.4	13	12.8	26	1.4	15	-1.0	6	—	—
Kharga.	30.0	21,25	17.6	13	10.6	18,19	1.8	6	1.6	6	—	—

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

FEBRUARY — 1971

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 . .	—	194.1	309.5	63	63	49	17	28	7.3	7.4	10.4	16	3.3	6,28	8.0	6.02	12.6	3.0	7
Tahrir.	395.3	232.4	310.3	75	60	38	16	28	6.8	6.4	10.7	17	3.0	28	6.2	5.46	0.2	0.2	7
Bahtim.. . . .	391.9	236.2	311.1	76	60	39	20	20,25	6.6	6.6	10.1	18	3.8	26	6.4	5.31	0.7	0.3	7,12
Kharga.. . . .	404.1	289.4	316.1	92	42	28	14	2,17	5.4	6.0	8.3	1,2	3.0	28	9.9	7.77	0	0	—

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MONTHLY WEATHER REPORT

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

Orders for publications should be addressed to :

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

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

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

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

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

THE ANNUAL REPORT

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

CLIMATOLOGICAL NORMALS FOR EGYPT

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

METEOROLOGICAL RESEARCH BULLETIN

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

TECHNICAL NOTES

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

THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

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MARCH, 1971

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on tables please refer to Volume 14, Number 1 (January 1971).

GENERAL SUMMARY OF WEATHER CONDITIONS

MARCH 1971

Changeable weather intervened with five khamsin heat waves. Record for daily rainfall at Bahariya on the 29th.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather this month was changeable in temperature, characterized by five moderate khamsin heat waves round the periods (1st—3rd), (7th—10th), 16th, (23rd—24th)and (28th—29th).

The break down of the heat waves was followed by rather cold periods, the most pronounced of which was round the end of the second week.

Light rain was reported over scattered places in few days. It is worthy to mention that 2.7mm. of rain fell over Bahariya on the 29th, which is a record since the year 1931.

Weather was sandy over scattered places during several days, and in particular round the 13th, 18th and 30th when widespread rising sand and scattered sandstorms were experienced.

PRESSURE DISTRIBUTION

The outstanding pressure systems over the surface charts during this month were:

— The Atlantic anticyclone and its extensions : eastwards through Europe and southeastwards through the Mediterranean and North Africa.

— The Siberian anticyclone and its extension towards East Mediterranean.

— Deep low pressure systems through North Europe.

— Secondary depressions through the Mediterranean and its vicinities.

— The Sudan monsoon low pressure trough.

During this month, six Mediterranean depressions were distinguished, five of which passed through East Mediterranean.

The first Mediterranean depression appeared over Central Mediterranean on the 1st; it moved eastwards and traversed East Mediterranean on the 3rd.

The second depression developed over Central Mediterranean on the 4th, it moved slowly northeastwards corssing Asia Minor and reached the Black Sea area on the 7th.

The third Mediterranean depression appeared over Central Mediterranean on the 8th with its southern trough over Cyranica. It proceeded eastwards and its trough passed through East Mediterranean on the 10th.

The fourth Mediterranean low pressure system developed over West Mediterranean on the 15th with a secondary depression over the gulf of Serte. The whole system moved eastwards and the secondary depression proceeded coastally eastwards and traversed East Mediterranean on the 17th.

A low pressure system appeared over West Europe and West Mediterranean together with a secondary near the gulf of Serte on the 21st, and moved eastwards till the 23rd. On the 24th the main low pressure system continued its track northeastwards to the Black Sea, while the secondary depression traversed East Mediterranean.

The last Mediterranean depression during this month developed over Italy on the 27th. It proceeded slowly eaestwards and its southern trough traversed East Mediterranean on the 31st.

The barometric pressure over Egypt was influenced by the transits of the above mentioned five depressions through East Mediterranean, and the subsequent development of high pressure in their rears. It accordingly experienced corresponding oscillations and reached consecutive minima round the 3rd, 10th, 17th,, 24th and 30th.

In 700 and 500 mb levels six upper troughs were distinguished through middle latitudes in association with the above mentioned surface Mediterranean depressions.

One of these troughs (the second) moved northwards traversing Greece on the 7th ; while the other five upper troughs moved eastwards traversing East Mediterranean and north Egypt on the 4th, 12th, 19th, 26th, and 31st.

SURFACE WIND

The prevailing winds during this month were generally light to moderate N/NW and backed to Wly by the transits of the Mediterranean troughs through the country. Winds became fresh or strong during several days in scattered places mainly in the Mediterranean, Red Sea, Western Desert and Upper Egypt districts.

Gales were reported at Sidi Barani on the 15th, Benha, Fayed and Cairo on the 30th, Hurghada on the 18th.

TEMPERATURE

Variability in air temperature was pronounced and its departures from normal were moderate to large. Maximum air temperature values ranged most of the month between 18° and 25°C in the northern parts, between 20° and 30°C in the middle parts and between 28° and 36°C in the southern parts.

The absolute maximum air temperature for the Republic was 38.6°C reported at Luxor on the 24th.

Minimum air temperature fluctuations were more or less similar to maximum air temperature fluctuations. Its values ranged generally between 6° and 15°C in the northern and middle parts, and between 10° and 18°C in the southern parts.

The absolute minimum air temperature for the Republic was 1.2°C reported at Farafra on the 1st.

PRECIPITATION

The monthly rainfall was subnormal in general. Light rain was reported over scattered places in the Mediterranean and Lower Egypt districts on the 13th, 18th and 26th and extended southwards to few localities in Upper Egypt and Western Destert districts on the 4th, 29th and 30th. It is noteworthy that the daily rainfall attained a record at Bahariya (2.7 mm) on the 29th.

The maximum monthly rainfall for the Repeblic was 5.7mm reported at Beni-Suef.

The maximum daily rainfall was 5.0mm reported at Fayoum on the 30th.

Cairo, May 1972

Chairman (M. F. TAHA)

Board of Directors

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

MARCH — 1971

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms. Mean
			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	1014.4	—0.6	22.4	+1.0	11.4	+0.3	16.9	16.5	+0.1	11.1	—0.7	48	—7	—	—	—	10.7
Mersa Matruh (A)	1015.5	—0.1	21.2	+0.7	10.2	+0.2	15.7	15.5	+0.5	11.1	—0.3	55	—8	263.6	371.0	71	9.3
Alexandria . .(A)	1015.8	+0.2	22.2	+1.0	10.5	—0.7	16.3	16.0	+0.2	12.1	—0.1	60	—6	266.7	371.6	72	6.1
Port Said . .(A)	1014.8	—0.6	21.5	+1.3	12.4	—1.2	17.0	16.3	—0.1	12.9	—0.4	65	—3	267.7	371.6	72	6.2
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1015.2	—0.3	23.2	—0.5	7.9	—0.4	15.6	15.3	—0.4	11.4	—0.4	59	—1	261.4	371.8	70	4.9
Cairo . . . .(A)	1015.2	—0.1	25.0	+1.1	12.0	+0.6	18.5	18.2	+0.6	11.8	—0.4	50	0	—	—	—	15.1
Fayoum	—	—	26.2	+0.9	9.6	+0.4	17.9	17.5	—0.4	12.3	+0.1	50	+3	—	—	—	6.2
Minya . . . .(A)	1014.8	—0.7	26.7	+0.9	9.2	+1.3	18.0	17.7	+1.1	11.6	+0.5	43	—5	286.4	372.2	77	10.4
Assyout . . .(A)	1013.3	—1.6	27.3	+0.7	10.9	+0.3	19.1	19.1	+0.5	11.3	+0.3	32	0	—	—	—	16.9
Luxor . . . .(A)	1012.4	—1.0	32.2	+1.9	11.9	+1.2	22.0	21.5	+1.4	13.0	+0.7	32	—2	—	—	—	9.9
Aswan . . . .(A)	1011.9	—1.1	32.7	+2.1	15.0	+1.7	23.8	23.5	+1.3	12.1	+1.0	17	+2	—	—	—	21.8
Siwa	1014.8	—0.8	26.5	+1.5	9.1	+0.7	17.8	17.6	+0.4	10.4	—0.1	34	—3	271.4	371.6	73	11.2
Bahariya	1015.4	0.0	26.9	+1.3	10.3	+1.4	18.6	18.6	+0.6	10.4	—0.2	28	—8	—	—	—	11.1
Farafra	1016.6	0.0	27.7	+1.1	9.6	+0.7	18.6	18.6	+0.7	10.6	+0.9	29	+2	—	—	—	12.8
Dakhla	1014.7	+0.1	28.9	+1.1	9.6	+0.3	19.2	19.4	+1.1	10.5	+0.9	24	0	—	—	—	15.4
Kharga	1013.5	—1.0	30.0	+1.5	12.1	+1.1	21.1	21.2	+0.9	11.1	—0.2	26	—3	313.4	371.9	84	15.5
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1013.5	+0.1	25.4	+2.0	13.5	+1.1	19.4	19.7	+0.9	13.3	+0.1	44	—6	290.7	371.8	78	12.2
Ouseir	1012.8	—0.7	24.8	0.0	16.8	+0.3	20.8	21.0	+0.2	14.8	+0.5	47	+1	—	—	—	14.2

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURE

MARCH — 1971

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature							
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Mean	D. From Normal	Highest	Date	Lowest	Date	No. of Days with Min. Temp.			
					> 25	> 30	> 35	> 40	> 45							<10	<5	<0	<-5
Sallum	32.4	9	14.3	13	8	3	0	0	0	11.1	—	17.5	9	6.3	14	8	0	0	0
Mersa Matruh . .	30.2	9	15.0	14	5	1	0	0	0	8.3	—	15.9	16	5.6	5	16	0	0	0
Alexandria . . (A)	32.0	16	16.1	14	6	1	0	0	0	8.6	—	15.9	24	4.8	1	16	1	0	0
Port Said . . (A)	28.7	24	15.1	14	4	0	0	0	0	—	—	15.1	24	6.3	14	4	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	30.3	16	15.7	14	8	2	0	0	0	—	—	12.9	16	3.4	7	23	5	0	0
Cairo . . . . (A)	32.8	16	16.2	14	12	5	0	0	0	—	—	19.8	16	7.2	15	5	0	0	0
Fayoum	32.0	10	18.5	14	16	6	0	0	0	6.0	—	14.5	3	4.2	15	10	1	0	0
Minya	34.0	24	19.0	14	17	6	0	0	0	7.5	—	15.4	3	3.2	15	19	2	0	0
Assyout. . . . (A)	34.0	24	23.5	15	22	7	0	0	0	8.7	—	17.4	30	5.5	1	10	0	0	0
Luxor . . . . (A)	38.6	24	22.5	14	30	21	6	0	0	8.3	—	20.0	31	4.4	1	9	1	0	0
Aswan . . . . (A)	38.4	25	23.5	14	30	21	9	0	0	—	—	20.4	31	7.8	15	1	0	0	0
Siwa	34.4	16	18.4	14	19	7	0	0	0	8.2	—	17.2	16	2.2	1	22	3	0	0
Bahariya	35.9	24	18.8	14	19	7	2	0	0	9.1	—	16.9	16	2.1	1	10	1	0	0
Farafra	36.0	16	17.6	14	23	8	4	0	0	9.2	—	16.7	30	1.2	1	19	3	0	0
Dakhla	34.8	24	19.5	14	28	12	0	0	0	9.7	—	21.3	30	1.8	1	19	3	0	0
Kharga	37.2	24	20.0	14	30	14	3	0	0	10.3	—	20.1	31	4.0	15	10	2	0	0
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	31.2	30	18.9	14	15	1	0	0	0	—	—	18.5	30	8.8	15,16	3	0	0	0
Quseir	29.4	3	20.0	15	13	0	0	0	0	14.7	—	20.0	31	11.5	16	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

MARCH — 1971

STATION	Maen 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	1.9	2.6	2.4	2.5	0.0	—11.6	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	2.4	3.0	3.3	2.1	2.8	4.0	— 8.3	4.0	26	0	1	1	0	0	0	0
Alexandria . . (A)	2.7	4.0	3.7	2.9	3.2	0.0	- 12.4	0.0	—	0	0	0	0	0	0	0
Port Said . . (A)	1.4	2.6	2.6	1.9	2.1	2.6	— 5.1	1.7	18	0	2	1	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1.2	2.7	3.2	2.1	2.4	0.4	— 3.8	0.4	18	0	1	0	0	0	0	0
Cairo . . . . (A)	1.3	3.2	3.0	2.3	2.4	0.0	— 1.8	0.0	—	0	0	0	0	0	0	0
Fayoum	—	2.6	3.1	2.1	—	5.0	+3.6	5.0	30	1	1	1	1	0	0	0
Minya . . . . (A)	1.1	2.2	2.5	2.5	1.9	0.9	+0.6	0.7	30	0	2	0	0	0	0	0
Assyout. . . . (A)	0.6	1.2	1.6	1.3	1.1	Tr.	0.0	Tr.	30,31	2	0	0	0	0	0	0
Luxor . . . . (A)	0.7	1.6	1.7	1.6	1.4	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Aswan . . . . (A)	0.5	1.6	1.6	1.4	1.3	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	1.6	1.7	3.6	2.6	2.2	0.0	—0.2	0.0	—	0	0	0	0	0	0	0
Bahariya	1.4	2.4	3.3	2.2	2.3	3.5	+3.5	2.7	29	0	2	1	0	0	0	0
Farafra	—	1.9	3.0	2.0	—	Tr.	—0.2	Tr.	30	1	0	0	0	0	0	0
Dakhla	0.5	0.1	1.3	0.9	0.7	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Kharga.	0.4	1.1	1.6	0.9	1.1	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.4	2.2	2.3	2.2	1.9	0.2	—0.2	0.2	31	1	1	0	0	0	0	0
Quseir	0.8	1.1	1.0	1.4	1.0	0.0	—0.3	0.0	—	0	0	0	0	0	0	0

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

MARCH — 1971

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											
Sallulm	0	0	0	0	0	0	0	0	0	0	4	0	0	17	1
Mersa Matruh (A)	1	0	0	0	0	2	4	1	1	0	8	7	0	13	2
Alexandria (A)	0	0	0	0	0	0	1	3	3	0	3	1	0	6	0
Port Said (A)	2	0	0	0	0	0	0	0	1	0	4	1	0	17	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1	0	0	0	0	0	5	1	4	0	3	0	0	17	1
Cairo (A)	0	0	0	0	0	0	1	0	9	0	7	3	1	13	0
Fayoum	1	0	0	0	0	0	0	0	2	0	2	0	0	—	—
Minya (A)	2	0	0	0	0	0	0	0	18	0	8	0	0	19	2
Assyout (A)	0	0	0	0	0	0	0	0	5	0	5	0	0	23	0
Luxor (A)	0	0	0	0	0	0	0	0	23	0	9	0	0	22	0
Aswan (A)	0	0	0	0	0	0	0	0	5	0	13	5	0	23	0
Siwa	0	0	0	0	0	0	0	0	0	0	10	0	0	14	0
Bahariya	2	0	0	0	0	0	0	0	2	0	4	0	0	15	1
Farafra	0	0	0	0	0	0	0	0	1	0	3	0	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	14	1	0	23	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1	0	0	0	0	0	0	0	1	0	7	2	1	19	0
Quseir	0	0	0	0	0	0	0	0	0	0	6	0	0	26	0

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

MARCH — 1971

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 direction
Sallum	3	0	0	1—10	32	32	57	46	65	35	20	20	19	39	112	35	512
				11—27	12	3	1	1	0	14	6	35	17	20	76	35	220
				28—47	0	0	0	0	0	0	0	0	0	1	8	0	9
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**44**	**35**	**58**	**47**	**65**	**49**	**26**	**55**	**36**	**60**	**196**	**70**	**741**
Mersa Matruh (A)	15	1	0	1—10	23	11	0	15	26	33	10	22	25	18	10	18	211
				11—27	27	6	9	52	69	46	25	35	33	32	69	90	493
				28—47	0	0	0	0	0	0	7	1	1	5	1	9	24
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**50**	**17**	**9**	**67**	**95**	**79**	**42**	**58**	**59**	**55**	**80**	**117**	**728**
Alexandria (A)	3	0	1	1—10	28	52	64	37	67	36	31	32	12	17	54	62	492
				11—27	13	23	8	17	6	2	2	5	15	39	92	26	248
				28—47	0	0	0	0	0	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**	**75**	**72**	**54**	**73**	**38**	**33**	**37**	**27**	**56**	**146**	**88**	**740**
Port Said (A)	9	0	0	1—10	82	37	77	108	20	14	7	16	27	79	47	44	558
				11—27	4	0	13	25	16	8	10	14	12	29	32	14	177
				28—47	0	0	0	0	0	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**	**37**	**90**	**133**	**36**	**22**	**17**	**30**	**39**	**108**	**79**	**58**	**735**
Tanta	12	4	6	1—10	22	88	71	56	24	49	46	33	32	31	37	51	550
				11—27	1	4	22	26	1	1	7	4	7	20	62	17	172
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**33**	**92**	**93**	**82**	**25**	**50**	**53**	**37**	**39**	**51**	**99**	**68**	**722**
Cairo (A)	52	1	0	1—10	42	54	81	49	18	20	9	14	12	37	48	59	443
				11—27	6	42	47	15	12	16	39	15	5	17	18	11	243
				28—47	0	0	0	0	0	0	4	1	0	0	0	0	5
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**48**	**96**	**128**	**64**	**30**	**36**	**52**	**30**	**17**	**54**	**66**	**70**	**691**
Fayoum	5	4	15	1—10	131	203	32	16	18	38	33	38	27	18	28	62	644
				11—27	5	30	5	0	0	0	8	15	3	1	1	7	75
				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	**136**	**233**	**37**	**16**	**18**	**38**	**41**	**53**	**31**	**19**	**29**	**69**	**720**
Minya (A)	9	1	4	1—10	241	37	5	7	7	65	56	19	14	10	29	68	558
				11—27	128	16	2	0	0	2	9	1	0	3	4	7	172
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**369**	**53**	**7**	**7**	**7**	**67**	**65**	**20**	**14**	**13**	**33**	**75**	**730**

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

MARCH — 1971

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	26	24	23	27	31	37	9	3	12	123	101	58	474
				11—27	42	9	3	1	13	13	6	5	0	6	59	71	228
Asyout . . . . (A)	42	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**	**33**	**26**	**28**	**44**	**50**	**15**	**8**	**12**	**129**	**160**	**129**	**702**
				1—10	52	48	39	38	24	41	55	26	30	76	89	131	649
				11—27	10	3	4	0	0	2	5	0	1	2	6	14	47
Luxor . . . . (A)	48	0	0	28—27	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**62**	**51**	**43**	**38**	**24**	**43**	**60**	**26**	**31**	**78**	**95**	**145**	**696**
				1—10	157	76	6	13	9	11	23	9	4	6	8	80	402
				11—27	193	48	0	0	3	1	0	0	0	4	6	73	328
Aswan . . . . (A)	13	0	0	28—47	1	0	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	**351**	**124**	**6**	**13**	**12**	**12**	**23**	**9**	**4**	**10**	**14**	**153**	**731**
				1—10	16	22	21	85	98	68	24	9	23	48	51	22	487
				11—27	24	18	1	2	27	19	25	15	3	8	45	24	211
Siwa	25	21	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	**40**	**40**	**22**	**87**	**125**	**87**	**49**	**24**	**26**	**56**	**96**	**46**	**698**
				1—10	62	54	38	52	45	32	66	43	31	47	84	107	661
				11—27	7	17	8	0	0	0	3	1	0	0	3	29	68
Dakhla	5	10	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	**69**	**71**	**46**	**52**	**45**	**32**	**69**	**44**	**31**	**47**	**87**	**136**	**729**
				1—10	126	80	14	12	9	9	18	7	12	26	40	95	448
				11—27	223	45	0	0	0	0	7	0	0	0	2	15	292
Kharga	4	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	**349**	**125**	**14**	**12**	**9**	**9**	**25**	**7**	**12**	**26**	**42**	**110**	**740**
				1—10	21	21	20	14	20	26	9	5	10	14	75	70	305
				11—27	125	15	0	0	15	5	0	0	0	0	57	171	388
Hurghada	28	0	0	28—47	13	0	0	0	0	0	0	0	0	0	0	10	23
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**159**	**36**	**20**	**14**	**35**	**31**	**9**	**5**	**10**	**14**	**132**	**251**	**716**
				1—10	142	65	43	24	12	21	22	10	9	7	18	99	472
				11—27	56	169	27	0	0	0	0	0	1	0	0	2	255
Quseir	8	0	1	28—47	1	7	0	0	0	0	0	0	0	0	0	0	8
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**199**	**241**	**70**	**24**	**12**	**21**	**22**	**10**	**10**	**7**	**18**	**101**	**735**

UPPER AIR CLIMATOLOGICAL DATA

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

MARCH — 1971

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	1014*m.b.	1020*m.b.	1000*m.b.	30	13.0	20.5	9.9	30	3.8
	1000	30	145	201	28	30	14.7	21.2	9.8	30	7.9
	850	29	1508	1579	1436	29	9.2	19.7	— 2.5	29	— 4.4
	700	29	3094	3175	3022	29	— 0.1	6.0	— 6.4	29	—12.7
	600	29	4311	4393	4209	29	— 8.0	— 4.1	—15.0	29	—19.9
	500	29	5705	5810	5569	29	—17.7	—13.5	—22.3	29	—28.6
	400	29	7337	7466	7176	29	—29.8	—26.4	—33.7	29	—39.9
	300	28	9329	9479	9152	28	—44.6	—39.4	—51.3	28	—52.9
	250	26	10535	10706	10347	25	—50.6	—43.2	—56.8	25	—59.0
	200	25	11987	12150	11808	25	—53.3	—48.7	—59.5	23	—62.5
	150	23	13809	13970	13678	23	—60.6	—53.4	—67.3	10	—66.8
	100	17	16283	16360	16188	17	—66.5	—59.1	—75.1	—	—
	70	9	18457	18513	18326	9	—64.4	—54.3	—70.1	—	—
	60	3	19457	19500	19400	3	—64.7	—63.6	—66.9	—	—
	50	3	20517	20582	20456	3	—63.8	—61.6	—67.7	—	—
	40	2	21970	22040	21900	2	—60.8	—60.2	—61.3	—	—
	30	2	23682	23750	23608	2	—55.8	—55.6	—56.1	—	—
	20	2	26282	26361	26204	2	—52.7	—50.4	—55.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	31	990*m.b.	1005*m.b.	989*m.b.	31	14.8	24.0	7.9	31	3.7
	1000	31	127	181	54	16	12.7	18.6	7.7	16	3.8
	850	31	1498	1555	1448	31	11.0	20.0	— 2.5	31	— 4.8
	700	31	3094	3191	3004	31	2.3	8.6	— 6.2	31	—12.5
	600	31	4321	4445	4191	31	— 6.2	— 1.6	—15.0	31	—18.4
	500	31	5724	5863	5558	31	—16.1	—12.3	—20.6	31	—26.6
	400	29	7365	7516	7186	29	—27.8	—19.1	—32.6	29	—38.2
	300	26	9367	9543	9182	26	—43.2	—38.8	—47.3	26	—52.2
	250	23	10568	10779	10384	23	—49.2	—41.5	—57.1	23	—58.0
	200	23	12068	12243	11851	23	—53.2	—47.5	—60.6	22	—61.8
	150	23	13845	14058	13660	23	—61.5	—54.9	—71.6	10	—66.2
	100	22	16306	16483	16094	22	—69.1	—60.6	—75.7	—	—
	70	12	18438	18540	18202	11	—66.7	—53.6	—75.4	—	—
	60	8	19144	19520	19380	7	—64.4	—59.7	—68.6	—	—
	50	8	20524	20601	20481	8	—64.1	—60.3	—66.0	—	—
	40	7	22005	22060	21960	7	—60.4	—55.7	—64.1	—	—
	30	7	23710	23750	23647	7	—58.6	—55.5	—61.0	—	—
	20	3	26314	26360	26274	3	—50.7	—48.3	—53.8	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 U.T.	Surface	30	988*m.b.	996*m.b.	981*m.b.	30	18.4	24.6	11.0	30	1.5
	1000	30	93	159	26	—	—	—	—	—	—
	850	30	1494	1532	1440	30	19.1	23.8	11.0	29	— 4.9
	700	29	3133	3172	3071	29	8.9	18.7	3.0	29	—12.1
	600	29	4389	4469	4305	29	— 0.3	5.9	— 4.3	28	—17.6
	500	28	5820	5890	5715	28	—10.6	— 7.7	—14.1	27	—26.7
	400	26	7491	7542	7317	26	—22.8	—16.5	—25.8	25	—35.9
	300	24	9545	9603	9427	24	—37.4	—33.0	—43.1	22	—48.1
	250	24	10782	10816	10676	24	—44.7	—39.6	—48.6	20	—56.3
	200	24	12250	12329	12124	24	—53.5	—47.9	—58.0	21	—64.2
	150	21	14058	14161	13951	21	—64.8	—59.6	—71.7	3	—69.2
	100	20	16466	16586	16321	20	—71.8	—70.0	—83.1	—	—
	70	11	18545	18673	18382	11	—71.3	—65.1	—76.9	—	—
	60	7	19571	19790	19440	7	—67.1	—60.7	—75.0	—	—
	50	6	20600	20734	20423	6	—63.7	—56.3	—72.8	—	—
	40	4	22092	22170	22030	4	—56.0	—54.9	—62.0	—	—
	30	3	23819	23883	23754	3	—56.8	—55.3	—57.6	—	—
	20	3	26431	26510	26364	3	—49.9	—48.3	—52.4	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

UPPER AIR CLIMATOLOGICAL DATA

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

MAREH — 1971

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	*1014m.b.	*1020m.b.	*1002m.b.	31	19.5	27.0	14.0	31	8.4
	1000	31	146	198	45	30	18.4	26.2	12.5	30	7.2
	850	31	1513	1579	1433	31	9.4	18.7	2.0	31	— 3.7
	700	30	3102	3187	3008	30	0.9	6.1	— 7.8	30	—14.1
	600	30	4323	4415	4194	30	— 7.2	— 2.9	—15.9	30	—21.9
	500	29	5718	5831	5549	29	—17.0	—12.9	—24.8	29	—29.8
	400	29	7356	7497	7140	28	—28.8	—25.4	—37.0	28	—40.9
	300	29	9353	9520	9090	29	—43.7	—39.0	—47.7	27	—54.5
	250	28	10565	10729	10302	28	—50.3	—43.1	—59.5	27	—60.2
	200	27	12019	12249	11917	26	—52.8	—48.3	—60.1	21	—62.9
	150	25	13860	14082	13739	25	—59.3	—52.1	—66.9	7	—67.6
	100	17	16359	16543	16277	17	—68.0	—59.7	—78.1	—	—
	70	9	18559	18658	18489	9	—62.6	—54.1	—71.6	—	—
	60	6	19545	19600	19460	6	—61.3	—55.6	—66.0	—	—
	50	6	20636	20724	20550	6	—62.4	—59.6	—65.0	—	—
	40	3	22103	22160	22060	3	—59.2	—58.2	—60.0	—	—
	30	3	23792	23839	23745	3	—53.1	—51.1	—55.1	—	—
	20	1	26368	—	—	1	—49.9	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	29	*998m.b.	*1003m.b.	*991m.b.	29	23.2	31.3	14.8	29	4.1
	1000	29	123	166	51	13	20.8	24.4	14.6	13	5.0
	850	29	1505	1554	1441	29	11.4	20.6	3.8	29	— 5.9
	700	29	3105	3178	3007	29	3.3	9.4	— 5.6	29	—14.2
	600	29	4336	4436	4211	29	— 5.1	— 0.4	—11.2	29	—18.9
	500	29	5751	5886	5588	29	—15.2	— 9.7	—20.6	29	—28.9
	400	28	7388	7539	7196	28	—27.0	—21.1	—33.5	28	—39.9
	300	28	9401	9569	9156	28	—41.8	—33.4	—47.6	28	—53.4
	250	26	10607	10801	10362	26	—48.5	—41.0	—55.6	26	—59.2
	200	25	12070	12263	11851	25	—51.6	—45.6	—54.7	24	—62.8
	150	25	13905	14094	13706	25	—59.6	—53.0	—66.8	14	—67.9
	100	21	16401	16602	16194	21	—66.9	—59.5	—73.0	—	—
	70	18	18574	18748	18397	18	—65.0	—60.2	—72.3	—	—
	60	14	19568	19770	19380	14	—63.7	—56.2	—69.0	—	—
	50	14	20629	20870	20454	14	—60.7	—56.7	—64.0	—	—
	40	13	22122	22380	21950	13	—58.6	—51.6	—63.2	—	—
	30	12	23845	24110	23640	12	—54.9	—51.3	—60.0	—	—
	20	7	26449	26577	26268	7	—49.5	—42.1	—57.1	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 1200 U.T.	Surface	28	*988mb.	*994mb.	*981mb.	28	30.9	36.2	22.0	28	1.4
	1000	26	82	143	17	—	—	—	—	—	—
	850	28	1503	1538	1460	28	18.6	23.7	11.2	28	— 7.5
	700	26	3148	3177	3064	26	8.0	11.4	3.2	26	—16.0
	600	26	4392	4434	4304	26	— 0.4	2.6	— 3.4	26	—20.5
	500	26	5823	5870	5719	26	—10.6	— 8.1	—13.0	26	—28.7
	400	25	7499	7560	7379	24	—22.9	—20.3	—26.0	24	—39.0
	300	22	9546	9609	9411	22	—37.5	—32.9	—42.0	21	—52.6
	250	19	10777	10850	10669	19	—44.1	—32.3	—48.9	19	—58.5
	200	19	12244	12315	12148	19	—52.0	—47.7	—55.9	17	—65.3
	150	17	14073	14133	13962	17	—62.4	—58.9	—68.5	1	—71.7
	100	11	16510	16574	16398	11	—73.7	—70.1	—78.3	—	—
	70	11	18604	18686	18489	11	—71.9	—69.4	—77.0	—	—
	60	6	19560	19680	19430	6	—68.5	—64.3	—71.4	—	—
	50	6	20614	20715	20479	6	—63.0	—59.9	—64.2	—	—
	40	2	22185	22220	22150	2	—60.5	—60.3	—60.7	—	—
	30	2	23890	23894	23885	2	—54.4	—52.3	—56.5	—	—
	20	1	26384	—	—	1	—42.2	—	—	—	—
	10	1	31324	—	—	1	—38.1	—	—	—	—

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

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

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

MARCH — 1971

	Station	Freezing Level									Frist Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	2961 (29)	718 (29)	—10.3 (29)	3840	646	— 6.1	1240	880	— 3.0	11110 (17)	233 (17)	—56.1 (17)	15700	111	—70.4	9164	300	—51.3	10882	239	255	163
	Helwan . . .	3350 (31)	680 (31)	—13.4 (31)	4200	618	—13.8	1190	882	— 3.5	11966 (16)	212 (16)	—57.9 (16)	16770	95	—76.6	9000	272	—48.2	6280	468	255	135
	Aswan . . (A)	4316 (29)	606 (29)	—17.5 (28)	4870	567	—22.0	3700	645	—25.1	15911 (11)	117 (11)	—73.9 (11)	17890	80	—73.5	10000	281	—47.7	10365	267	295	140
1200 U.T											(N)	(N)	(N)										
	M. Matruh (A)	3174 (30)	672 (30)	—14.0 (30)	4000	632	—11.6	1770	825	— 5.9	10806 (16)	242 (16)	—53.1 (16)	11760	205	—56.2	8900	309	—46.5	11051	234	240	170
	Helwan . . .	3477 (29)	670 (29)	—15.4 (29)	4400	602	—13.5	1960	798	— 8.1	12421 (23)	204 (23)	—58.0 (23)	17040	90	—70.4	8430	396	—36.2	18050	68	265	138
	Aswan . . (A)	4341 (26)	607 (26)	—20.1 (26)	4870	567	—22.0	2780	725	—12.5	16100 (8)	108 (8)	—73.4 (8)	16850	95	—74.5	15170	123	—70.8	10396	265	300	130

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

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

MERSA MATRUH (A) — MARCH 1971

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360°)																								Number of Calm winds	Total Number of Observations (T N)	Mean Scalar Wind Speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	0	—	1	6	0	—	0	—	6	9	5	8	2	18	4	6	5	9	2	14	2	13	1	25	2	30	9
	1000	1	10	1	4	0	—	0	—	4	16	3	15	2	14	0	—	2	12	4	10	3	20	1	32	0	21	15
	850	1	4	0	—	0	—	0	—	1	5	2	8	1	31	0	—	2	32	6	15	5	26	2	18	0	20	19
	700	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	4	40	6	29	4	21	3	31	0	18	29
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	4	45	6	40	4	38	2	23	0	17	37
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	45	5	53	6	50	1	31	0	17	48
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	63	6	61	4	61	6	66	0	—	0	17	63
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	74	5	99	5	51	0	—	0	15	75
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	83	5	81	5	67	0	—	0	13	76
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	48	5	79	4	81	0	—	0	11	73
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	44	3	63	1	87	0	—	0	5	64
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	47	1	50	1	49	0	—	0	4	48
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	30	1	40	0	2	35
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	26	0	—	0	2	26
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	3	13	0	—	2	10	5	17	1	10	3	18	0	—	2	13	0	—	1	32	6	20	8	15	0	31	16
	1000	1	17	1	17	1	13	4	14	2	18	3	13	1	11	2	14	0	—	2	18	5	24	7	17	0	29	18
	850	2	12	0	—	1	8	1	9	1	6	2	15	3	13	3	19	6	18	6	26	4	28	0	—	0	29	19
	700	1	6	0	—	0	—	0	—	1	5	0	—	1	14	1	35	8	35	9	36	5	28	2	22	0	28	30
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	28	9	41	10	53	4	30	3	25	0	28	41
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	56	8	52	14	49	3	40	1	36	0	27	49
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	44	7	61	12	67	3	52	2	55	0	25	66
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	3	114	10	86	6	78	2	61	0	22	83
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	82	11	93	4	113	1	90	0	19	95
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	84	7	100	5	91	0	—	0	15	96
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	80	7	76	1	75	0	—	0	11	77
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	51	0	—	0	—	0	3	51
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	1	10	0	—	0	2	13
	60	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

HELWAN — MARCH 1971

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	2	10	12	11	4	13	4	7	2	10	2	13	0	—	0	—	0	—	1	10	0	—	3	9	1	31	10
	1000	0	—	10	15	1	12	1	6	1	8	0	—	0	—	0	—	0	—	0	—	1	13	1	5	1	16	12
	850	2	24	2	6	0	—	0	—	0	—	3	14	1	5	4	28	7	16	2	12	7	15	3	17	0	31	16
	700	0	—	2	10	0	—	0	—	0	—	0	—	1	5	1	14	6	37	14	25	2	12	4	22	0	30	24
	600	0	—	1	14	0	—	0	—	0	—	0	—	0	—	1	7	7	48	13	42	7	21	1	17	0	30	35
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	28	6	48	12	52	5	39	3	15	0	27	44
	400	0	—	0	—	0	—	1	33	0	—	0	—	0	—	0	—	4	36	8	36	5	50	3	26	0	21	40
	300	0	—	0	—	0	—	1	85	0	—	0	—	0	—	0	—	2	42	10	42	4	67	1	27	0	18	49
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	47	10	46	3	57	1	65	0	15	48
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	9	52	3	63	1	35	0	14	52
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	49	1	41	0	—	0	4	47
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	51	2	56	0	—	0	—	0	3	54
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	90	0	—	0	1	90
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	75	0	—	0	1	75
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	4	9	4	16	0	—	0	—	0	—	0	—	0	—	7	10	4	9	3	3	2	11	5	10	0	29	10
	1000	4	11	2	17	0	—	0	—	0	—	0	—	0	—	1	5	1	16	1	5	1	14	3	10	0	13	11
	850	2	13	0	—	0	—	2	4	0	—	2	10	1	5	5	20	3	16	5	13	4	11	5	13	0	29	13
	700	1	11	0	—	0	—	0	—	0	—	2	14	1	4	2	26	5	46	10	28	4	17	4	20	0	29	25
	600	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	3	9	36	10	40	5	21	3	27	0	28	33
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	10	50	8	46	6	33	3	25	0	27	42
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	3	32	9	38	9	46	0	—	0	22	40
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	29	3	30	7	49	6	48	1	53	0	18	45
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	28	9	51	6	56	1	55	0	17	52
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	12	66	5	64	0	—	0	17	63
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	106	8	53	3	71	0	—	0	12	62
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	21	1	70	4	45	2	40	0	—	0	8	44
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	67	2	82	1	31	0	—	0	4	66
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	38	1	46	0	—	0	3	40
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	1	50	1	45	0	—	0	3	38
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	25	1	83	0	—	0	—	0	2	54
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	60	0	—	0	—	0	—	0	1	60
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

ASWAN (A) — MARCH 1971

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	16	13	7	10	1	5	2	10	0	—	0	—	1	7	0	—	0	—	0	—	1	10	2	10	0	30	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	5	9	6	13	6	9	2	12	4	9	0	—	0	—	2	7	0	—	1	12	1	7	3	16	0	30	11
	700	6	13	2	16	0	—	0	—	1	9	1	6	0	—	1	5	4	15	7	14	4	14	3	10	0	29	13
	600	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	16	12	25	6	20	5	23	0	28	22
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	32	12	34	10	33	2	20	0	27	33
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	33	11	46	10	50	2	32	0	25	46
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	69	5	55	14	64	0	—	0	23	63
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	64	10	75	11	82	0	—	0	23	77
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	66	13	82	7	74	0	—	0	23	77
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	58	8	53	8	62	0	—	0	19	50
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	35	7	41	3	52	1	30	0	15	41
	70	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	—	4	13	1	19	0	—	0	6	14
	60	0	—	0	—	0	—	0	—	0	—	1	7	0	—	0	—	1	10	1	18	0	—	0	—	0	3	12
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	1	10	0	—	0	2	14
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	1	13	0	—	0	2	16
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	0	—	1	15	0	—	0	2	14
	20	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	10
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	13	14	4	12	1	10	1	2	2	8	1	8	1	8	1	12	0	—	1	3	0	—	3	11	0	28	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	4	13	4	12	5	12	5	10	1	11	1	5	0	—	0	—	2	8	3	14	1	9	2	22	0	28	12
	700	3	10	3	15	1	6	1	12	0	—	1	4	0	—	1	6	2	23	6	17	3	21	5	15	0	26	15
	600	2	22	1	6	0	—	0	—	0	—	0	—	0	—	0	—	3	23	7	29	7	19	6	20	0	26	22
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	4	30	13	34	6	33	2	20	0	26	32
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	49	14	50	10	48	0	—	0	25	48
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	62	4	68	13	68	1	65	0	20	67
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	70	9	81	1	76	0	16	76
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	69	6	74	8	84	1	80	0	16	79
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	11	68	3	57	0	—	0	14	66
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	33	3	52	2	30	0	—	0	6	41
	70	0	—	0	—	0	—	0	—	0	—	1	3	0	—	0	—	1	40	1	16	0	—	1	12	0	4	18
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	11	0	—	0	—	0	—	0	—	0	1	11
	50	0	—	0	—	1	3	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	3
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — MARCH 1971

For the month as a whole, the mean daily air temperature was slightly above normal and the mean daily relative humidity was rather normal. The total monthly rainfall was 4.0 mm. against 12.3 mm. for normal.

The month was charactrized by four short heat waves in the periods : (1st—3rd), (8th—10th), (15th—16th) & (28th—30th). The second heat wave yielded the highest maximum air temperature for the month (30.2°C) on the 9th. During rest of the month mild weather prevailed and maximum air temperatures were slightly below normal.

The extreme maximum soil temperatures were lower than the corresponding values of last March at all depths between 2 & 100 cm. with departures between 6.4°C at 2 cm. and 0.7°C at 100 cm. The extreme minimum soil temperatures were lower than the corresponding values of last March, except at 20 & 100 cm. depths where the values were slightly higher (0.3° & 0.1°C respectively) ; the departures varied between 1.3°C at 5 cm. and 0.4°C at 50 cm.

The mean daily values of actual sunshine duration and wind speed at 1.5 m. were lower than the corresponding values of March 1970 by 0.2 hour and 0.8 m./sec. respectively.

TAHRIR — MARCH 1971

This month was rather normal with respect to the mean daily air temperature and relative humidity. The total monthly rainfall was only 0.2 mm. against 1.1 mm. for normal.

The month was characterized by five short heat waves in the periods (1st—2nd), (8th—10th), 16th, (23rd—24th) & 29th. The second heat wave yielded the highest maximum air temperature for the month (33.0°C) on the 10th. During rest of the month, mild weather prevailed and maximum air temperatures were mostly below normal.

The extreme maximum soil temperatures were lower than the corresponding values of last March at depths between 2 & 20 cm. with departures between 4.4°C at 2 cm. and 1.7°C at 20 cm. At 50 cm. depth the value was slightly higher (0.3°C) and at 100 cm. depth the value was the same as last March. The extreme minimum soil temperatures were lower than the corresponding values of last March at all depths between 2 & 100 cm. with departures between 0.1°C at 2 cm. and 1.5°C at 20 cm.

The mean daily values of actual sunshine duration, Pan evaporation and wind speed at 1.5 m. were lower than the corresponding values of March 1970. by 0.2 hour, 0.75 mm. and 0.3 m./sec. respectively.

BAHTIM — MARCH 1971

For the month as a whole, the mean daily air temperature was slightly lower than the corresponding value of last March, and the mean daily relative hutidity was slightly higher. The total monthly rainfall was only 0.3 mm. against 0.4 mm. for last March.

The month was characterized by five short heat waves in the periods : 2nd, (8th—10th), 16th, (23rd—24th) & 29th. The second heat wave yielded the highest maximum air temperature for the month (33.0°C) on the 10th. Break down of these heat waves was followed by mild periods in which maximum air temperatures were below normal.

The extreme maximum soil temperature wa higher than the corresponding value of last March at 2 cm. depth and lower at all depths between 5 & 100 cm. ; the departures varied between 0.9° & 0.2°C. The extreme minimum soil temperatures were lower than the corresponding values of last March at all depths between 2 & 100 cm. with departures between 2.9°C at 2 cm. and 0.4°C at both 50 & 100 cm.

The mean daily values of actual sunshine duration and Pan evaporation were lower than the corresponding values of March 1970 by 0.4 hour and 0.09 mm. respectively ; the mean daily wind speed was slightly higher (0.1 m./sec).

KHARGA — MARCH 1971

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

The month was characterized by five heat waves in the periods : (2nd—3rd), (5th—10th), (16th—17th), (22nd—24th) & (29th—31st). The second heat wave was the longest, and the fourth heat wave yielded the highest maximum air temperature for th month (37.2°C) on the 24th. During rest of the month maximum air temperatures were below normal.

The extreme maximum soil temperatures were lower than the corresponding values of last March at all depths, except at 100 cm. depth where the values were the same ; the departures ranged between 1.9°C at 5 cm. and 0.4°C at 50 cm. The extreme minimum soil temperatures were lower than the corresponding values of last March at all depths between 2 & 100 cm. with departures between 1.8°C at 10 cm. and 0.4°C at 100 cm.

The mean daily actual sunshine duration wa lower than the corresponding value of March 1970 by 0.6 hour ; the mean daily pan evaporation and wind speed at 1.5 m. were higer by 2.13 mm. and 0.6 m./sec. respectively.

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

MARCH — 1971

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. . .	21.2	10.2	15.5	13.3	17.6	24.0	24.0	24.0	22.3	13.1	3.1	0.6	0.1	0.0	0.0	0.0
Tahrir	24.6	8.4	16.4	12.8	19.9	24.0	24.0	23.7	20.4	13.5	6.4	1.4	0.3	0.0	0.0	0.0
Bahtim	24.1	7.4	15.8	12.0	19.6	24.0	24.0	23.7	19.0	12.5	6.2	1.5	0.2	0.0	0.0	0.0
Kharga	30.0	12.1	21.3	17.4	25.1	24.0	24.0	23.9	22.9	19.4	13.5	6.9	2.5	0.2	0.0	0.0

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

MARCH — 1971

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. . .	30.2	9	15.0	14	15.9	16	5.6	5	2.0	20	—	—
Tahrir	33.0	10	16.9	14	14.8	16	3.2	1	1.2	1	—	—
Bahtim	33.0	10	16.3	14	15.9	16	1.6	1	—1.6	1	—	—
Kharga	37.2	24	20.0	14	20.1	31	4.0	15	1.8	15	—	—

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

MARCH — 1971

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	425.0	263.6	371.0	71	61	50	6	2	7.9	8.2	13.6	16	1.3	2	9.3	8.35	4.0	4.0	26
Tahrir . .	490.4	273.1	371.0	74	59	34	9	16	7.7	7.0	13.7	24	2.9	1,16	7.3	6.72	0.2	0.2	18
Bahtim . .	479.4	261.5	371.1	70	61	37	9	16	7.8	7.6	14.6	24	2.3	16,17	7.8	6.50	0.3	0.3	30
Kharga .	481.2	313.4	371.9	84	29	18	6	7,23	5.1	5.4	9.8	30	1.5	11	15.5	13.39	0.0	0.0	—

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

MARCH — 1971

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	29.3	26.8	23.6	20.5	19.2	19.0	19.6	—	—	—	—	—	—	—	—	—
	L	8.4	8.1	10.8	14.3	15.9	16.7	19.3	—	—	—	—	—	—	—	—	—
Tahrir	H	39.2	33.5	28.2	24.7	22.7	20.9	20.3	20.9	—	—	—	—	—	—	—	—
	L	10.4	11.0	12.1	14.7	16.7	18.2	19.2	20.2	—	—	—	—	—	—	—	—
Bahtim	H	43.7	33.8	27.2	23.3	21.9	21.5	22.2	23.6	—	—	—	—	—	—	—	—
	L	9.9	10.4	14.5	17.7	19.5	20.1	22.1	23.1	—	—	—	—	—	—	—	—
Kharga . . .	H	47.0	37.9	32.7	27.5	25.6	25.0	25.4	27.0	—	—	—	—	—	—	—	—
	L	6.4	10.5	14.5	19.2	21.7	23.2	25.0	26.6	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

MARCH — 1971

Station	Wind Speed m/sec at $1^1/_2$ metres			Days with surface wind speed at 10 metres							Max. Gust (knots at 10 meters)	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	30 knots	≥35 knots	≥40 knots	value (knots)	Date
Mersa Matruh.	4.8	3.9	5.8	31	31	21	18	8	3	1	51	15
Tahrir	2.4	1.8	3.0	29	21	10	5	2	0	0	40	30
Bahtim	2.3	1.6	3.1	29	16	6	3	1	1	0	47	30
Kharga	3.8	2.8	4.7	28	19	17	7	2	0	0	38	7

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THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 14 NUMBER 4

APRIL, 1971

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968, this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

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 "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 14 NUMBER 4

APRIL, 1971

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

APRIL 1971

Rather cold in the north, mild otherwise; khamsiny during the last week. Daily rainfall record at Cairo on the 3rd.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather was generally rather cold in the northern parts, mild in the middle and southern parts.

Weather was characterized with two light khamsin heat waves round the 2nd and 11th and a pronounced heat wave which prevailed from the 26th till the end of the month.

Weather was rainy in several days over the northern parts where the monthly rainfall was above normal. The daily rainfall was heavy over scattered coastal localities on the 3rd and 12th, and attained a record at Cairo (4.6 mm. on the 3rd) since the year 1947.

Rising sand blew over scattered places on several days particularly on the 3rd, 11th and 12th when rising sand was widespread and associated with scattered sandstorms.

PRESSURE DISTRIBUTION

The most important pressure systems over the synoptic surface charts during this month were :

– The Siberian anticyclonic extension over the Mediterranean.

– Five Mediterranean depressions.

– Five coastal khamsin secondary depressions.

– Four northward elongations of the Sudan monsoon trough.

A west Mediterranean deep low pressure system appeared on the 1st, associated with a khamsin secondary south of gulf of Serte, together with high pressure extending from SW Russia to East Mediterranean. The complex low pressure system moved eastwards till Central Mediterranean; then the primary depression proceeded northeastwards towards the Black Sea, while the coastal khamsin proceeded eastwards and traversed East Mediterranean on the 3rd.

On the *4th*, a deep secondary depression developed over west Mediterranean and proceeded eastwards traversing East Mediterranean on the *6th*, when the Sudan trough showed a northward elongation.

On the *8th*, a complex low pressure appeared over west Mediterranean and North Algiers. This system amalgamated in one depression over Central Mediterranean on the *10th*, while the Sudan trough elongated towards the Western Desert where a khamsin secondary developed. The Mediterranean depression remained quasi - stationary while filling; and the khamsin secondary moved northeastwards reaching East Mediterranean and Asia Minor on the *12th*, where it remained quasi - stationary till the *17th*, then it filled up the next day.

The Sudan trough showed a third northward elongation on the *19th* and *20 th*. This was followed by the development of a khamsin secondary over the Western Desert on the *21st* which proceeded eastwards and passed through Middle Egypt on the *22 nd*.

The fourth Mediterranean depression appeared on the *23rd* over West Europe and west Mediterranean and was associated with a secondary depression over North Algiers. The two depressions moved eastwards, and the desert secondary filled near the gulf of Serte on the *26th*.

The last depression during this month appeared on the 26*th* over West Europe together with a desert secondary over North Algiers. The main depression moved eastwards, while the khamsin secondary moved northeastwards and was associated with the northward elongation of the Sudan trough. The khamsin secondary filled up over East Mediterranean on the 29*th*.

The barometric pressure over the country this month was affected by the transits of the above mentioned khamsin secondary depressions, and the subsequent development of high pressure. It was slightly round normal in the first third of the month, remarkably below normal in the period (10*th* — 17*th*) and generally above normal the rest of the month.

In the 700 and 500 mb. levels the outstanding features were :

—Two deep upper lows over North Atlantic and North Russia.

—Secondary upper troughs or lows through the Mediterranean and its vicinities, passing through East Mediterranean and north of Egypt on the 4*th*, 8*th*, 12*th*. 17*th* and 21*st*.

—Upper high pressure belt over the subtropical latitudes.

SURFACE WIND

The prevailing winds during this month were generally light to moderate N / NW in general but changed in few days to W ly.

Winds became fresh or strong during several days mainly in the period (10*th*-17*th*). Calms were frequent over scattered localities in late evening and early morning intervals.

Gales were reported at Sidi Barrani and Mersa Matruh on the 3*rd*, Dabaa on the 3*rd* and 11*th*., Abu-Sueir on the 11*th*, Aswan on the 15*th* and Hurghada on the 12 *th*.

TEMPERATURE

Maximum air temperatures were generally below normal apart from the heat wave in the period (26*th* – 30*th*) when maximum air temperatures were markedly above normal. The departures below normal were remarkable in particular in the period (12*th*-24*th*). Maximum air temperatures ranged most of the month between 19° and 28°C in the northern parts, between 22° and 32°C in the middle parts and between 29° and 38°C in the southern parts.

The absolute maximum air temperature for the month was 42.5°C reported at Aswan on the 29*th*.

Minimum air temperature showed moderate departures round its normal in general, though the departures were remarkable in few days at some localities. Minimum air temperature values ranged most of the month between 8° & 15°C in the northern, middle parts and between 13° & 20° C in the southern parts.

The absolute minimum air temperature for the month was 4-8°C reported at Damanhour on the 19*th*.

PRECIPITATION

The monthly rainfall was generally above normal in the northern parts, deficient and subnormal otherwise.

Light to moderate rain fell over the northern parts round the periods (2*nd* - 3*rd*) and (10*th* – 17*th*). Rain extended in land in few days to some localities in the middle parts. Rain was heavy over scattered parts in the Mediterranean district on the 2*nd* & 12*th*.

The daily rain over Cairo on the 3*rd* was 4.6 mm, a record since the year 1947.

The highest monthly rainfall was 40.0mm reported at Rosetta.

The highest daily rainfall was 18.7 mm reported at Damietta on the 12 *th*.

Cairo, June 1972

Chairman (M. F. TAHA)

Board of Directors

SURFACE DATA

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

APRIL — 1971

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	1012.8	—0.6	23.2	—0.5	13.4	—0.1	18.3	17.8	—1.1	13.3	—0.5	57	+ 1	—	—	—	10.4
Mersa Matruh (A)	1013.6	—0.8	22.7	0.0	12.1	+0.1	17.4	17.0	—0.3	13.3	—0.1	64	0.0	267.7	387.8	69	8.5
Alexandria . (A)	1013.4	—0.7	22.7	—1.1	12.4	—1.0	17.6	17.3	—0.9	13.4	—1.2	62	— 4	275.8	388.2	71	6.2
Port Said . . (A)	1011.9	—1.8	22.0	—0.5	13.7	—3.1	17.8	17.0	—1.8	14.1	—1.4	71	+ 1	282.7	388.2	73	10.8
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1012.6	—0.6	24.6	—3.2	10.0	—0.8	17.3	16.8	—1.9	12.7	—1.2	60	+ 6	274.1	387.8	71	5.1
Cairo . . . .(A)	1012.6	—0.8	25.9	—2.3	13.5	—0.5	19.7	19.4	—1.5	13.3	—1.2	46	00	—	—	—	16.0
Fayoum	—	—	27.7	—2.0	12.0	—1.2	19.8	19.7	—1.6	13.6	—0.5	47	+ 7	—	—	—	8.2
Minya . . (A)	1012.5	—0.3	28.7	—1.9	11.2	—0.7	20.0	20.0	—1.2	12.8	—1.1	38	— 3	293.7	385 1	76	13.2
Assyout . . . (A)	1010.7	—1.4	29.6	—2.2	13.2	—1.7	21.4	21.4	—2.4	12.9	—0.4	31	+ 7	—	—	—	17.9
Luxor . . . (A)	1010.2	—0.3	33.2	—1.4	14.2	—1.4	23.7	23.7	—2.1	13.9	—1.2	27	+ 1	—	—	—	11.8
Aswan . . . (A)	1010.1	+0.4	33.1	—2.0	16.4	—1.3	24.8	24.8	—2.0	12.8	—0.5	16	+ 4	—	—	—	21.8
Siwa.	1012.8	—0.6	29.1	—0.7	13.1	—0.9	21.1	21.0	—0.6	13.2	+0.1	35	+ 3	289.1	385.1	75	12.9
Bahariya	1013.0	+0.6	28.2	—1.8	13.0	+0.2	20.6	20.8	—1.6	12.4	—0.9	31	+ 2	—	—	—	13.6
Farafra	1014.1	+0.2	29.8	—1.4	12.6	—0.7	21.2	21.4	—1.3	11.8	—0.8	24	+ 1	—	—	—	16.4
Dakhla	1012.9	+1.7	31.1	—1.7	12.4	—1.6	21.8	22.0	—1.9	12.0	—0.6	22	+ 4	—	—	—	20.0
Kharga	1011.4	+0.1	31.6	—1.7	15.2	—0.3	23.4	23.9	—0.9	12.8	—0.8	25	+ 2	329.9	381.6	86	22.7
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1010.7	—0.2	26.7	+0.4	15.2	—1.0	21.0	21.6	—0.7	14.6	—1.1	42	— 5	319.4	383.4	83	14.0
Quseir	1010.4	—0.2	26.1	—1.1	18.5	—1.0	22.3	22.7	—0.8	15.6	—1.1	43	— 3	—	—	—	14.3

Table A 2.– MAXIMUM AND MINIMUM AIR TEMPERATURES

APRIL — 1971

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	33.5	2,25	18 3	21	9	3	0	0	0	13.1	—	17.9	30	9.9	17,18	2	0	0	0
Mersa Matruh (A)	35.4	29	18.2	16	9	2	1	0	0	10.8	—	16.4	26	7.7	1	5	0	0	0
Alexandria (A)	30.6	27	18.4	16	6	1	0	0	0	11.1	—	16.2	28	8.5	6	7	0	0	0
Port Said (A)	25.7	30	18.6	17	3	0	0	0	0	13.4	—	16.8	29	10.2	17	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	33.7	29	19 2	18	10	5	0	0	0	—	—	14.5	11	6.5	19	17	0	0	0
Cairo (A)	34.8	28	20.1	18	13	5	0	0	0	—	—	17.7	27	9.8	1,18	3	0	0	0
Fayoum	36.8	30	22.0	16,17	21	6	4	0	0	7.7	—	17.6	29	7.3	18	5	0	0	0
Minya (A)	39.0	28	22.2	18	24	7	4	0	0	9.2	—	17.2	29	6.6	24	11	0	0	0
Assyout (A)	39.3	28	23.0	16	25	10	5	0	0	12.5	—	19.0	29	9.7	19	1	0	0	0
Luxor (A)	42.2	29,30	25.4	16	30	23	6	3	0	10.6	—	22.2	30	9.0	18	1	0	0	0
Aswan (A)	42.5	29	26 0	17	30	22	7	3	0	—	—	24.0	30	11.8	19	0	0	0	0
Siwa	39.2	30	22 7	15-17	23	11	4	0	0	—	—	19.8	29	7.8	24	5	0	0	0
Bahariya	38.0	28	21.4	16	22	9	4	0	0	11.9	—	21.9	28	7.9	24	5	0	0	0
Farafra	38.3	28	22 6	16	24	14	5	0	0	12.4	—	19.9	29	8.7	19	2	0	0	0
Dakhla	39.4	29	23.8	16	27	19	7	0	0	12.2	—	28.0	30	5.9	25	7	0	0	0
Kharga	41.4	29	24.8	16	29	21	7	1	0	12.8	—	25.5	30	10.8	18	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	31.5	27	22.6	17	23	3	0	0	0	—	—	21.9	30	10.4	18	0	0	0	0
Quseir	33.4	11	22.9	24	19	1	0	0	0	14.8	—	23.0	29	15.5	2	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

APRIL — 1971

Station	Mean Sky Cover Oct					Rainfall mms										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	Dev. From Normal	Max. Fall in one day		Number of Days With Amount of Rain						
								Amount	Date	< 0.1	≥ 0.1	≥ 1.0	≥ 5.0	≥10	≥25	≥50
Sallum	3.9	3.0	3.2	3.5	3.4	5.3	+ 4.2	2.6	16	0	4	2	0	0	0	0
Mersa Matruh (A)	2.2	4.1	3.2	2.6	3.4	6.8	+ 4.3	2.7	15	0	7	3	0	0	0	0
Alexandria (A)	3.7	3.7	4.1	3.9	3.7	20.1	+17.0	10.9	12	0	7	4	1	1	0	0
Port Said (A)	2.8	2.7	2.7	2.4	2.8	18.8	+15.7	9.6	3	0	5	2	2	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1.0	2.7	4.0	2.3	2.6	12.8	+10.7	8.6	3	0	7	3	1	0	0	0
Cairo (A)	1.1	2.3	3.2	1.7	2.1	4.6	+ 3.8	4.6	3	5	1	1	0	0	0	0
Fayoum	—	1.6	2.9	2.1	—	3.0	+ 2.3	3.0	3	1	1	1	0	0	0	0
Minya (A)	1.1	1.7	2.5	1.7	1.7	Tr.	— 0.4	Tr.	12,14	2	0	0	0	0	0	0
Assyout (A)	0.4	0.3	1.5	0.9	0.7	1.0	+ 1.0	1.0	12	1	1	1	0	0	0	0
Luxor (A)	0.3	0.6	0.7	0.6	0.6	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.2	0.5	0.7	0.5	0.5	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	0.7	1.8	2.6	2.0	1.7	13.9	+13.0	13.6	2	0	3	1	1	1	0	0
Bahariya	0.7	1.3	2.3	1.3	1.4	Tr.	— 0.5	Tr.	2,3,14	3	0	0	0	0	0	0
Farafra	—	0.8	1.4	0.8	—	0.2	+ 0.1	0.1	2,3	0	2	0	0	0	0	0
Dakhla	0.3	0.5	0.7	0.2	0.4	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.4	0.4	0.8	0.4	0.5	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.4	1.2	1.2	1.8	1.4	Tr.	0.0	Tr.	12	1	0	0	0	0	0	0
Quseir	0.0	0.9	0.9	0.5	0.5	Tr.	0.0	Tr.	2	1	0	0	0	0	0	0

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

APPIL — 1971

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥1000 metres	Fog Vis <1000 Metres	Haze Vis ≥1000 Metres	Thick Haze Vis <1000 Metres	Dust or Sandrising Vis ≥1000 Metres	Dust or Sandstorm Vis <1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice, Pellets	Hail											
Sallum	4	0	0	0	0	0	0	0	0	0	2	0	0	9	2
Mersa Matruh (A)	7	0	0	0	0	0	1	3	0	0	6	7	1	7	1
Alexandria (A)	7	0	0	0	0	1	2	4	0	0	2	1	0	7	4
Port Said (A)	5	0	0	0	0	1	1	0	1	0	2	0	0	13	2
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gh:zza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	7	0	0	0	0	0	6	2	0	0	1	0	0	12	0
Cairo (A)	1	0	0	0	0	0	5	0	3	0	5	4	0	15	0
Fayoum	1	0	0	0	0	0	0	0	1	0	3	0	0	—	—
Minya (A)	0	0	0	0	0	0	0	0	4	0	7	0	0	20	0
Assyout (A)	1	0	0	0	0	0	0	0	4	0	6	1	0	26	0
Luxor (A)	0	0	0	0	0	0	0	0	11	0	5	5	0	28	0
Aswan (A)	0	0	0	0	0	0	0	0	10	0	10	5	1	27	0
Siwa	3	0	0	0	0	0	0	0	0	0	4	0	0	19	1
Bahariya	0	0	0	0	0	0	0	0	0	0	4	0	0	22	0
Farafra	2	0	0	0	0	0	0	0	2	0	5	2	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	10	0	0	29	0
Kharga	0	0	0	0	0	0	0	0	0	0	10	0	0	27	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	9	1	1	22	1
Quseir	0	0	0	0	0	0	0	0	0	0	3	0	0	26	0

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

APRIL — 1971

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	22	0	1	1-10	27	33	80	108	66	15	12	8	17	58	82	46	552
				11-27	2	0	23	0	0	0	1	5	10	24	53	26	144
				28-47	0	0	1	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	**29**	**33**	**104**	**108**	**66**	**15**	**13**	**13**	**27**	**82**	**135**	**72**	**697**
Mersa Matruh (A)	6	0	0	1-10	13	19	17	32	41	40	18	16	9	13	8	19	245
				11-27	23	36	20	66	47	14	12	13	19	27	67	103	447
				28-47	3	0	0	0	0	0	0	0	2	1	13	3	22
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**39**	**55**	**37**	**98**	**88**	**54**	**30**	**29**	**30**	**41**	**88**	**125**	**714**
Alexandria (A)	2	0	0	1-10	54	72	25	25	32	26	25	9	8	13	42	92	423
				11-27	14	36	16	7	2	0	0	6	17	83	83	31	295
				28-47	0	0	0	0	0	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**	**108**	**41**	**32**	**34**	**26**	**25**	**15**	**25**	**96**	**125**	**123**	**718**
Port Said (A)	29	0	0	1-10	85	84	115	40	8	6	12	8	27	24	21	81	511
				11-27	2	3	2	9	1	1	2	3	52	74	10	21	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	**87**	**87**	**117**	**49**	**9**	**7**	**14**	**11**	**79**	**98**	**31**	**102**	**691**
Tanta	39	0	0	1-10	57	83	68	41	12	14	6	20	55	43	32	36	467
				11-27	18	10	21	9	9	1	2	0	25	56	46	17	214
				28-47	0	0	0	0	0	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**	**93**	**89**	**50**	**21**	**15**	**8**	**20**	**80**	**99**	**78**	**53**	**681**
Cairo (A)	32	0	6	1-10	41	63	77	42	8	1	6	17	18	40	25	30	368
				11-27	29	57	56	12	3	1	6	11	51	51	29	8	314
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**70**	**120**	**133**	**54**	**11**	**2**	**12**	**28**	**69**	**91**	**54**	**38**	**682**
Fayoum	2	5	0	1-10	102	258	36	10	7	11	22	14	38	23	51	48	620
				11-27	3	39	0	0	0	0	1	3	7	27	12	1	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	**105**	**297**	**36**	**10**	**7**	**11**	**23**	**17**	**45**	**50**	**63**	**49**	**713**
Minya (A)	5	3	3	1-10	215	40	5	4	8	18	25	8	8	15	30	82	458
				11-27	161	3	0	0	0	0	0	3	8	14	34	28	251
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**376**	**43**	**5**	**4**	**8**	**18**	**25**	**11**	**16**	**29**	**64**	**110**	**709**

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

APRIL — 1971

Station	calm (hours)	variable (hours)	unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of direction indicated												
					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
Assyout . . . . . (A)	0	1	113	1-10	23	12	13	34	10	5	5	2	6	98	83	55	346
				11-27	59	13	1	0	2	9	0	3	5	27	59	70	248
				28-47	0	0	0	0	0	0	0	0	1	2	3	0	6
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**82**	**25**	**14**	**34**	**12**	**14**	**5**	**5**	**12**	**127**	**145**	**125**	**600**
Luxor . . . . . (A)	27	0	0	1-10	54	38	17	23	21	36	46	24	45	87	113	107	611
				11-27	1	7	3	0	2	0	4	4	13	33	15	0	82
				28-47	0	0	0	0	0	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**	**45**	**20**	**23**	**23**	**36**	**50**	**28**	**58**	**120**	**128**	**107**	**693**
Aswan . . . . . (A)	2	9	0	1-10	166	68	18	7	6	10	12	2	6	20	25	87	427
				11-27	99	29	5	0	0	0	3	0	4	24	42	65	271
				28-47	0	0	0	0	0	0	1	1	0	5	2	2	11
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**265**	**97**	**23**	**7**	**6**	**10**	**16**	**3**	**10**	**49**	**69**	**154**	**709**
Siwa	13	1	4	1-10	17	46	39	112	68	46	40	16	6	23	35	22	470
				11-27	13	14	6	15	50	6	8	6	14	21	53	21	227
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**30**	**60**	**45**	**127**	**118**	**52**	**48**	**22**	**20**	**44**	**88**	**43**	**697**
Dakhla	12	0	0	1-10	55	54	38	23	20	27	42	37	47	63	92	96	594
				11-27	5	32	0	0	2	3	2	0	0	5	36	19	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	**60**	**86**	**38**	**23**	**22**	**30**	**44**	**37**	**47**	**68**	**128**	**115**	**698**
Kharga	1	0	2	1-10	162	94	12	2	10	10	12	0	14	25	54	84	485
				11-27	133	38	0	0	0	0	0	0	2	13	28	18	232
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**295**	**132**	**12**	**2**	**10**	**10**	**12**	**6**	**16**	**38**	**82**	**102**	**717**
Hurghada	6	0	7	1-10	23	44	13	4	12	18	9	2	3	4	42	62	236
				11-27	147	46	0	0	7	23	5	0	1	13	64	159	465
				28-47	0	0	0	0	0	0	0	0	0	2	2	2	6
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**170**	**90**	**13**	**4**	**19**	**41**	**14**	**2**	**4**	**19**	**108**	**223**	**707**
Quseir	8	0	0	1-10	131	103	34	21	5	8	22	18	11	7	17	107	484
				11-27	25	143	17	2	0	0	8	0	0	0	2	31	228
				28-47	0	0	0	0	0	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**	**246**	**51**	**23**	**5**	**8**	**30**	**18**	**11**	**7**	**19**	**138**	**712**

UPPER AIR CLIMATOLOGICAL DATA

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

APRIL—1971

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	28	*1013mb.	*1020mb.	*1002mb.	28	15.0	20.0	11.8	28	10.7
	1000	28	134	194	45	28	15.7	23.1	13.1	28	9.7
	850	28	1507	1584	1415	28	11.1	22.8	1.1	28	—
	700	28	3101	3232	2988	28	1.3	8.0	— 6.8	28	—13.6
	600	28	4322	4484	4180	28	— 6.9	— 0.7	—15.0	28	—23.3
	500	28	5723	5912	5543	28	—16.9	—11.3	—25.9	28	—32.6
	400	28	7360	7572	7133	28	—29.4	—23.0	—33.5	28	—43.7
	300	28	9354	9600	9094	28	—43.7	—40.0	—47.0	28	—56.3
	250	28	10559	10820	10318	28	—50.7	—41.2	—55.4	27	—59.8
	200	26	11999	12254	11794	26	—54.0	—45.4	—64.0	20	—63.7
	150	24	13845	14040	13690	24	—56.9	—51.5	—62.9	13	—66.4
	100	21	16377	16555	16230	21	—64.0	—52.1	—69.4	1	—69.0
	70	13	18575	18728	18489	13	—63.0	—59.2	—65.6	—	—
	60	12	19555	19720	19480	12	—61.9	—58.5	—64.3	—	—
	50	11	20652	20818	20528	11	—61.5	—57.8	—64.0	—	—
	40	8	22135	22320	22040	8	—60.4	—57.6	—63.3	—	—
	30	8	23841	24058	23755	8	—57.0	—50.5	—62.7	—	—
	20	1	26325	—	—	1	—54.5	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	29	*996 mb.	*1003mb.	*984mb.	29	15.6	25.4	11.3	29	0.6
	1000	29	107	165	04	7	13.7	20.0	11.0	7	6.4
	850	29	1477	1538	1374	29	10.6	21.4	1.6	28	— 3.0
	700	29	3068	3171	2953	29	1.5	7.3	— 8.0	28	—11.2
	600	29	4292	4419	4149	29	— 6.7	— 1.6	—13.9	28	—19.1
	500	29	5690	5839	5512	29	—16.7	—11.2	—23.9	28	—29.1
	400	29	7347	7503	7125	29	—28.7	—23.2	—34.5	28	—39.5
	300	29	9321	9533	9113	29	—43.2	—38.8	—47.6	28	—52.3
	250	29	10545	10889	10324	29	—49.5	—42.6	—56.3	27	—58.1
	200	27	11984	12164	11786	27	—52.5	—44.3	—62.7	23	—60.4
	150	27	13817	13961	13634	27	—58.2	—52.3	—64.7	18	—64.7
	100	24	16323	16452	16179	24	—66.0	—61.1	—72.1	—	—
	70	20	18486	18614	18366	20	—65.5	—62.2	—71.0	—	—
	60	16	19472	19610	19300	16	—64.5	—61.2	—66.6	—	—
	50	16	20555	20695	20412	16	—63.7	—60.3	—70.8	—	—
	40	11	22072	22250	22000	11	—61.2	—57.1	—63.7	—	—
	30	9	23753	23907	23694	9	—58.3	—53.5	—60.5	—	—
	20	4	26408	26508	26274	4	—51.6	—50.1	—53.3	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 0000 U.T.	Surface	29	*987mb.	*993mb.	*978mb.	29	20.3	30.6	15.0	29	— 0.4
	1000	29	76	132	00	—	—	—	—	—	—
	850	29	1476	1508	1408	29	16.5	24.6	8.2	28	— 3.9
	700	29	3099	3167	2990	29	6.8	12.2	1.2	29	—13.8
	600	28	4350	4426	4219	28	— 1.0	3.5	— 6.6	28	—19.7
	500	28	5779	5873	5641	28	—11.0	— 7.0	—16.1	27	—29.1
	400	26	7462	7562	7385	26	—23.5	—21.2	—25.7	26	—39.5
	300	26	9508	9612	9415	26	—37.2	—32.3	—40.7	26	—51.1
	250	26	10752	10848	10634	26	—44.6	—40.8	—49.7	26	—57.8
	200	25	12240	12314	12072	25	—52.2	—47.1	—57.0	24	—64.3
	150	23	14051	14177	13904	23	—61.5	—56.4	—66.0	6	—68.6
	100	20	16496	16635	16354	20	—72.8	—69.7	—77.0	—	—
	70	11	18593	18720	18466	11	—71.1	—66.8	—76.9	—	—
	60	8	19588	19700	19460	8	—66.6	—63.4	—71.0	—	—
	50	8	20661	20770	20520	8	—63.0	—60.6	—65.2	—	—
	40	6	22168	22280	22000	6	—60.3	—59.4	—62.0	—	—
	30	6	23883	23970	23721	6	—55.4	—54.8	—56.6	—	—
	20	4	26471	26566	26333	4	—48.5	—45.7	—50.0	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

UPPER AIR CLIMATOLOGICAL DATA

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

APRIL — 1971

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 Matrah 1200 U.T.	Surface	29	1013mb	*1020mb	*1003mb	29	20.7	35.0	13.2	29	10.7
	1000	29	137	195	54	29	19.6	34.0	13.1	29	8.4
	850	29	1514	1580	1415	29	11.3	21.0	2.4	29	— 3.7
	700	27	3107	3210	2989	27	1.1	8.5	— 8.4	27	—11.9
	600	27	4329	4448	4184	27	— 7.3	— 1.0	—15.0	27	—20.9
	500	26	5720	5861	5553	26	—17.2	—13.1	—24.8	26	—29.3
	400	25	7354	7527	7144	25	—29.1	—25.1	—35.1	25	—41.3
	300	24	9351	9547	9100	24	—43.8	—40.3	—46.9	24	—52.3
	250	22	10552	10757	10314	22	—49.4	—43.5	—54.0	21	—60.2
	200	22	12004	12178	11799	22	—52.8	—44.6	—61.7	18	—62.4
	150	19	13856	13970	13709	19	—56.5	—48.9	—63.2	9	—68.9
	100	12	16396	16471	16314	12	—62.6	—58.4	—68.8	1	—70.2
	70	8	18612	18656	18566	8	—63.6	—58.9	—66.2	—	—
	60	7	19616	19740	19550	7	—61.4	—59.5	—63.5	—	—
	50	7	20695	20739	20648	7	—58.3	—55.4	—61.2	—	—
	40	2	22200	22200	22200	2	—58.3	—57.9	—58.7	—	—
	30	2	23942	23952	23932	2	—51.6	—51.0	—52.2	—	—
	20	2	26602	26623	26582	2	—48.1	—47.9	—48.3	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	28	*995mb	*1004mb	*980mb	28	24.8	34.5	18.0	28	3.8
	1000	28	102	172	09	7	22.6	28.8	18.4	7	6.5
	850	28	1492	1557	1373	28	12.6	23.6	5.1	28	— 5.2
	700	28	3090	3201	2960	27	2.8	9.3	— 5.9	27	—14.9
	600	27	4318	4452	4160	26	— 5.3	0.5	—12.1	26	—22.6
	500	27	5722	5880	5530	27	—15.2	—10.5	—21.9	27	—31.6
	400	27	7370	7550	7140	27	—27.4	—22.1	—32.7	27	—42.4
	300	25	9393	9582	9168	25	—42.5	—36.7	—46.3	25	—55.6
	250	25	10601	10799	10392	25	—49.1	—42.4	—57.0	25	—61.5
	200	23	12045	12247	11877	23	—53.3	—46.1	—62.5	18	—63.6
	150	17	13900	14075	13759	17	—57.3	—50.7	—62.9	11	—67.0
	100	14	16440	16625	16359	14	—65.6	—59.8	—77.3	1	—70.4
	70	11	18613	18795	18520	11	—64.0	—60.8	—65.5	—	—
	60	9	19583	19800	19440	9	—62.4	—60.2	—64.3	—	—
	50	8	20666	20766	20590	8	—61.0	—56.2	—63.3	—	—
	40	8	22211	22430	22030	8	—58.4	—55.1	—61.8	—	—
	30	8	23894	23985	23778	8	—54.2	—51.1	—56.9	—	—
	20	5	26534	26622	26488	5	—46.7	—43.5	—50.5	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface	26	*987mb	*993mb	*978mb	26	30.9	39.0	24.8	26	— 0.8
	1000	26	74	132	37	—	—	—	—	—	—
	850	26	1492	1520	1457	26	16.9	25.5	10.3	26	— 9.8
	700	26	3118	3175	3074	26	7.8	13.8	2.9	26	—18.0
	600	25	4374	4440	4314	25	— 0.2	3.9	— 3.7	25	—23.4
	500	25	5807	5883	5744	25	—10.4	— 6.4	—14.1	25	—31.0
	400	25	7487	7583	7394	25	—23.1	—19.1	—33.0	25	—42.6
	300	25	9540	9647	9429	25	—36.7	—33.3	—43.3	25	—53.7
	250	24	10786	10897	10680	24	—44.4	—40.0	—50.8	21	—60.0
	200	23	12256	12348	12134	23	—52.1	—49.0	—56.1	19	—66.3
	150	22	14089	14212	13948	22	—60.8	—55.9	—64.9	6	—71.7
	100	18	16556	16760	16418	18	—70.4	—57.5	—80.6	—	—
	70	14	18668	18815	18560	14	—67.2	—61.3	—73.2	—	—
	60	6	19625	19800	19520	6	—64.0	—59.3	—68.7	—	—
	50	6	20721	20909	20601	6	—60.1	—53.5	—65.6	—	—
	40	3	22243	22420	22120	3	—58.2	—56.4	—59.5	—	—
	30	3	23982	24182	23811	3	—51.5	—50.4	—52.2	—	—
	20	2	26756	26882	26630	2	—42.8	—41.2	—44.3	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

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

APRIL — 1971

	Station	Freezing Level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gmp)	Pressure (mb.)	Direction (000–360)	Speed in Knots
0000 U.T.	M. Matruh (A)	3235 (28)	692 (28)	—13.9 (28)	4360	609	—25.1	1670	830	— 0.7	11144 (25)	233 (25)	—55.2 (25)	13500	162	—60.0	7460	383	—40.9	11923	203	290	150
	Helwan . . .	3176 (29)	693 (29)	—10.8 (28)	4150	616	— 9.4	1560	856	— 0.7	11394 (26)	229 (26)	—54.8 (26)	16680	95	—73.5	7800	365	—37.9	16470	96	280	116
	Aswan . . (A)	4098 (28)	618 (28)	—19.0 (28)	5000	557	—24.2	3180	684	—22.1	15330 (10)	127 (10)	—70.3 (10)	17280	90	—77.8	11150	231	—53.4	11710	215	254	145
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	3180 (27)	697 (27)	—11.7 (27)	4280	612	—13.5	1770	822	— 6.4	10944 (16)	243 (16)	—53.0 (16)	16428	100	—68.5	8920	312	—45.1	11918	205	290	145
	Helwan . (A)	3416 (27)	672 (27)	—16.8 (27)	4500	595	—23.4	2080	780	— 4.4	11424 (11)	227 (11)	—54.9 (11)	16950	94	—69.2	8680	321	—41.8	14370	138	320	135
	Aswan . . (A)	4325 (25)	601 (25)	—23.6 (25)	4900	567	—31.7	3720	648	—18.6	16250 (10)	106 (10)	—70.7 (10)	17460	87	—74.0	14750	130	—61.6	10854	243	298	129

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

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

MERSA MATRUH (A)— APRIL 1971

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	3	1	16	0	—	2	10	5	8	3	7	0	—	2	4	3	10	3	16	5	17	2	8	1	28	10
	1000	1	4	1	21	1	5	2	14	4	13	4	9	0	—	0	—	1	4	4	14	7	19	3	14	0	28	14
	850	3	16	0	—	2	14	1	9	1	7	0	—	1	3	1	8	3	14	0	—	9	25	7	13	0	28	16
	700	2	31	0	—	1	12	0	—	0	—	1	15	0	—	1	11	1	21	4	26	11	30	7	29	0	28	27
	600	1	14	0	—	0	—	0	—	0	—	0	—	1	14	0	—	3	21	2	39	16	30	5	31	0	28	29
	500	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	1	40	9	28	13	39	4	44	0	28	35
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	9	7	32	15	47	5	44	0	28	42
	300	1	93	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	12	53	12	61	2	84	0	27	60
	250	1	98	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	48	11	65	10	75	0	—	0	24	69
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	70	7	64	7	87	2	66	0	18	74
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	55	2	54	0	—	0	8	56
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	34	3	34	0	—	0	—	0	4	34
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	15	0	—	0	—	0	1	15
	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	—	0	—	0	—	1	23	0	—	0	—	0	1	23
	40	0	—	0	—	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	13
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	3	10	4	10	5	14	2	18	0	—	2	16	0	—	0	—	1	22	2	38	3	22	7	14	0	29	16
	1000	4	8	2	10	1	23	6	13	1	20	1	21	1	21	0	—	0	—	2	29	4	26	7	18	0	29	17
	850	2	15	1	12	1	5	1	4	1	9	0	—	0	—	3	23	2	6	4	14	11	22	3	21	0	29	17
	700	2	22	1	9	0	—	0	—	0	—	0	—	1	27	0	—	0	—	5	22	12	31	6	24	0	27	26
	600	2	18	0	—	0	—	0	—	0	—	0	—	0	—	1	31	0	—	5	38	14	30	5	29	0	27	31
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	49	1	37	5	42	12	33	5	35	0	24	39
	400	1	24	1	10	0	—	0	—	0	—	0	—	0	—	0	—	3	27	10	46	6	54	3	71	0	24	47
	300	1	45	0	—	0	—	0	—	0	—	0	—	0	—	1	18	1	38	7	47	9	67	3	83	0	22	58
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	70	10	72	2	87	0	20	73
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	72	7	86	2	56	0	13	77
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	62	5	70	0	—	0	9	67
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	53	3	38	1	28	0	—	0	5	39
	70	0	—	0	—	0	—	0	—	0	—	0	—	2	14	1	4	0	—	0	—	0	—	0	—	0	3	10
	60	0	—	0	—	0	—	0	—	1	7	0	—	0	—	0	—	1	9	0	—	0	—	0	—	0	2	8
	50	0	—	0	—	1	5	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	9
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	1	10
	30	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	10
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

HELWAN — APRIL 1971

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			
U.T. 0000	Surface	1	7	9	10	7	12	2	6	1	4	1	4	0	—	0	—	1	5	5	7	0	—	2	7	0	29	9
	1000	0	—	4	12	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	9	0	7	11
	850	4	13	3	19	2	9	0	—	0	—	1	16	0	—	1	12	1	13	6	15	6	11	5	11	0	29	13
	700	2	14	0	—	1	3	0	—	0	—	0	—	0	—	1	21	2	26	7	23	8	21	8	17	0	29	20
	600	1	27	0	—	0	—	0	—	0	—	0	—	1	14	0	—	5	16	9	25	8	21	5	18	0	29	21
	500	1	19	0	—	0	—	0	—	0	—	0	—	0	—	1	18	4	20	10	27	11	24	2	37	0	29	25
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	4	26	10	30	12	27	2	36	0	29	28
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	17	0	—	4	38	11	45	7	42	5	38	0	28	42
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	36	9	40	10	42	1	56	0	25	44
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	36	9	49	8	52	2	18	0	22	45
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	45	8	40	4	56	0	—	0	15	47
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	4	57	2	56	0	—	0	7	54
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	15	0	—	0	—	0	—	0	2	15
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	0	—	0	—	0	—	0	1	18
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0	1	20
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
U.T. 1200	Surface	7	11	4	15	0	—	0	—	1	15	1	11	0	—	2	10	2	14	4	18	1	15	6	7	0	28	12
	1000	3	8	1	10	0	—	0	—	0	—	0	—	0	—	0	—	1	14	0	—	1	11	1	4	0	7	9
	850	3	11	6	10	3	10	0	—	0	—	0	—	1	2	1	14	1	26	7	14	3	12	3	7	0	28	12
	700	1	15	1	12	2	5	0	—	0	—	0	—	0	—	2	15	4	18	4	20	9	15	5	15	0	28	15
	600	1	29	1	11	0	—	0	—	0	—	0	—	0	—	2	12	3	22	7	20	10	16	2	14	0	26	18
	500	1	2	0	—	0	—	0	—	0	—	0	—	0	—	2	19	5	27	8	21	7	24	3	24	0	26	22
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	20	6	24	9	34	7	29	1	33	0	25	29
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	6	29	7	55	7	37	2	42	0	23	42
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	51	7	49	6	44	2	28	0	20	46
	200	1	58	0	—	0	—	0	—	0	—	0	—	0	—	1	24	3	63	3	45	9	48	0	—	0	17	49
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	33	5	34	3	48	2	64	0	12	42
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	30	2	32	2	34	0	—	0	6	32
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	21	0	—	0	—	0	—	0	2	21
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	16	0	—	0	—	0	—	0	2	16
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	20	0	—	0	—	0	—	0	2	20
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	25	1	12	0	—	0	—	0	—	0	2	18
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	7	0	—	1	23	0	—	0	—	0	2	15
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	30	0	—	0	—	0	—	0	1	30
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

ASWAN (A) — APRIL 1971

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000—360°)																								Number of Calm winds	Total Number of Observations (T.N)	Mean Scalar wind Speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	9	12	7	11	0	—	2	7	1	10	0	—	1	10	0	—	0	—	0	—	3	18	6	12	0	29	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	7	15	4	12	3	13	2	12	1	12	0	—	1	14	1	21	0	—	0	—	5	18	3	18	0	27	15
	700	1	15	1	10	0	—	0	—	0	—	2	4	2	6	0	—	1	48	8	21	8	26	3	14	0	26	20
	600	0	—	0	—	1	4	1	3	0	—	0	—	1	6	1	19	1	12	10	36	8	29	1	20	0	24	27
	500	0	—	0	=	0	—	0	—	1	7	0	—	0	—	0	—	3	33	9	50	10	28	1	18	0	24	36
	400	0	—	0	—	0	—	0	—	0	—	0	—	1	20	1	15	2	62	8	56	10	45	1	70	0	23	49
	300	0	—	0	—	0	—	0	-	0	—	0	—	0	—	1	64	3	58	9	67	7	88	3	60	0	23	71
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	9	3	95	6	79	11	84	2	66	0	23	80
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	84	8	80	8	96	1	114	0	20	89
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	10	65	6	64	0	—	0	16	65
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	30	3	30	1	38	0	—	0	6	32
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	1	80	0	—	0	—	0	2	50
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	3	0	—	0	1	3
	50	0	—	0	—	0	—	0	—	0	—	1	5	0	—	0	—	0	—	0	—	0	—	0	—	0	1	5
	40	0	—	0	—	0	—	1	6	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	6
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	11	11	3	9	0	—	2	7	0	—	0	—	0	—	1	8	0	—	1	14	5	9	2	10	1	26	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	7	12	1	15	1	16	2	12	0	—	1	7	0	—	0	—	1	19	4	8	3	28	6	11	0	26	11
	700	0	—	1	7	0	—	1	8	0	—	1	8	1	8	0	—	3	22	5	18	9	18	5	22	0	26	18
	600	1	18	1	7	0	—	0	—	0	—	3	6	1	12	0	—	4	41	8	30	5	27	2	20	0	25	25
	500	1	28	0	—	0	—	0	—	0	—	1	10	1	10	0	—	6	46	6	43	9	26	1	14	0	25	33
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	7	44	7	64	8	40	2	31	0	25	46
	300	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	5	68	6	70	11	81	1	85	0	24	73
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	72	8	75	9	85	2	81	0	23	79
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	37	2	96	10	87	5	86	0	—	0	18	86
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	53	6	72	6	60	0	—	0	13	65
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	30	4	24	2	27	0	—	0	10	27
	70	0	—	0	—	1	14	1	14	0	—	0	—	0	—	0	—	1	14	0	—	1	13	1	19	0	5	15
	60	0	—	0	—	0	—	1	5	0	—	1	13	0	—	0	—	0	—	0	—	1	18	0	—	0	3	12
	50	0	—	0	—	1	35	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	24
	40	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	1	20
	30	0	—	0	—	0	—	1	21	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	21
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — APRIL 1971

For the month as a whole, the mean daily air temperature was rather normal and the mean daily relative humidity was slightly above normal. The total monthly rainfall was 6.8 mm. against 2.5 mm. for normal.

The month was characterized by three variant heat waves in the periods (*2nd* & *3rd*), (*5th* & *6th*) and (*25th*-*30th*). The last wave yielded the highest maximum air temperature for the month (35.4°C) on the *29th*. During rest of the month, mild weather was experiencèd and maximum air temperatures were below normal.

The extreme maximum soil temperatures were lower than the corresponding values of last April at 2,5 & 100 cm. depths with departures between 0.3° and 1.0°C. At 10, 20 and 50 cm. depths the values were higher than last April with departures between 0.3 and 1.3°C. The extreme minimum soil temperatures were lower than the corrèsponding values of last April at all depths between 2 and 100 cm. with departures between 1.6°C at 2,5 cm. and 0.9 at 100 cm.

The mean daily wind speed at 1.5 m. was higher than the corresponding value of April 1970 by 0.6 m./ sec. ; while the mean daily actual sunshine duration and Pan evaporation were lower by 1.0 hour and 3.58 mm. respectively.

TAHRIR — APRIL 1971

For the month as a whole, the mean daily air temperature was below average and the mean daily relative humidity was slightly above average. The total monthly rainfall was 7.3 mm. against 1.7 mm for average.

Mild weather prevailed with subnormal maximum air temperatures from the beginning of the month till the *25th* apart from a light heat wave on the *11th*; the departures of maximum air temperatures below normal were remarkable in the period (*12th* - *24th*). The month was ended by a moderate heat wave in the period (*26th* - *30th*) yielding the highest maximum air temperature for the month (33.7°C) on the *30th*.

The extreme maximum soil temperatures were lower than the corresponding values of last April at all depths apart from the 50 cm. depth where the value was slightly higher (0.6°C) ; the departures varied between 4.1°C at 10 cm. and 0.5°C at 100 cm. The extreme minimum soil temperatures were higher than the corresponding values of last April at shallow depths between 2 and 10 cm. with departures between 3.5°C at 2 cm. and 0.5°C at 10 cm. At deeper depths between 20 and 100 cm. ; the extreme soil minima were lower than last April with departures between 1.6°C at 50 cm. and 0.3°C at 100 cm.

The mean daily wind speed at 1.5 m. was the same as last April ; while the mean daily actual sunshine duration and Pan evaporation were lower by 1.0 hour and 1.28 mm respectively.

BAHTIM — APRIL 1971

For the month as a whole, the mean daliy air temperature was lower than the corresponding value of last April and the mean daily relative humidity was slightly higher. The total monthly rainfall was 11.1 mm. against 3.3 mm. for last April.

The month was characterized by the prevalence of mild weather the whole month apart from a light heat wave on the 11*th* and a moderate heat wave in the period (26*th* - 30*th*) yielding the highest maximum air temperature for the month (33.1°C) on the 30*th*. The daily maximum air temperatures were remarkably below normal in the period (12*th* - 24*th*).

The extreme maximum and minimum soil temperatures were lower than the corresponding values of last April at all depths between 2 and 100 cm. The departures for the extreme maxima varied between 3.7°C at 2 cm. and 1.1°C at 100 cm. The departures for the extreme minima varied between 2.4°C at 5 cm. and 0.2°C at 100 cm.

The mean daily actual sunshine duration and pan evaporation were lower than the corresponding values of April 1970 by 0.9 hour and 1.27 mm. respectively.

KHARGA — APRIL 1971

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

The month was intervened with three heat waves in the periods (1*st* & 2*nd*), 10*th* and (27*th* - 30*th*). The last heat wave yielded the highest maximum air temperature for the month (41.4°C) on the 29*th*. During rest of the month, maximum air temperatures were below normal with remarkable departures in the period (12*th* - 25*th*).

The extreme maximum soil temperatures were lower than the corresponding values of last April at all depths apart from 5 & 10 cm. depths where the values were higher; the departures varied between 0.3° and 1.0°C. The extreme minimum soil temperatures were higher than the corresponding values of last April at all depths; the departures varied between 1.4°C at 10 cm. and 0.1°C at 100 cm.

The mean daily actual sunshine duration was higher than the corresponding value of April 1970 by 0.5 hour; the mean daily pan evaporation and wind speed at 1.5m. were lower by 0.86 mm. and 0.3 m. /sec. respectively.

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

APRIL — 1971

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. .	22.7	12.1	17.0	14.6	18.4	24.0	24.0	24.0	23.5	16.4	3.5	1.0	0.2	0.0	0.0	0.0
Tahrir	25.8	11.0	17.9	14.2	20.1	24.0	24.0	24.0	22.7	16.2	7.5	2.2	0.8	0.0	0.0	0.0
Bahtim.	25.4	9.5	17.3	13.2	19.8	24.0	24.0	24.0	22.0	14.7	7.2	2.0	0.7	0.0	0.0	0.0
Kharga	31.6	15.2	24.0	20.5	26.1	24.0	24.0	24.0	24.0	22.5	16.8	9.9	3.9	1.0	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

APRIL — 1971

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Mersa Matruh. . . .	35.4	29	18.2	16	16.4	26	7.7	1	2.6	1	—	—
Tahrir	33.7	30	19.9	16	14.8	3	6.3	19	4.9	19	—	—
Bahtim.	33.1	30	20.2	16	13.7	12,13	5.0	19	2.9	19	—	—
Kharga	41.4	29	24.8	16	25.5	30	10.8	18	8.2	18	—	—

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

APRIL — 1971

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.	502.5	267.7	387.8	69	69	53	17	29	9.8	9.8	14.2	26	5.6	25-29	8.5	8.02	6.8	2.7	15
Tahrir	467.9	275.6	386.7	71	63	40	20	11	9.2	8.6	15.1	3	5.8	17	7.5	7.33	7.3	4.9	3
Bahtim. . . .	567.0	275.6	386.3	71	63	40	20	26	8.8	8.7	14.9	3	5.4	17	8.3	7.58	11.1	9.9	3
Kharga. . . .	556.2	329.9	381.6	86	27	18	6	27	5.7	5.7	10.6	4	2.4	28	19.3	16.13	0.0	—	—

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

APRIL — 1971

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)								Extreme soil temperature (°C) in grass field at different depths (cms.)							
		2	5	10	20	50	100	200	300	2	5	10	20	50	100	200	300
Mersa Matruh	H	39.6	34.3	30.3	25.2	22.2	20.1	19.9	—	—	—	—	—	—	—	—	—
	L	11.7	12.3	13.8	16.5	16.5	18.6	19.4	—	—	—	—	—	—	—	—	—
Tahrir . .	H	46.5	39.8	33.6	30.0	26.3	23.2	21.5	21.9	—	—	—	—	—	—	—	—
	L	16.1	16.2	15.7	17.4	19.7	20.9	20.[illegible]	21.0	—	—	—	—	—	—	—	—
Bahtim . . .	H	46.1	37.0	31.0	26.0	23.5	22.5	22.6	23.0	—	—	—	—	—	—	—	—
	L	15.0	14.6	17.2	20.2	21.8	21.5	22.2	22.9	—	—	—	—	—	—	—	—
Kharga . . .	H	52.4	45.1	38.6	32.0	29.0	26.6	26.2	26.7	—	—	—	—	—	—	—	—
	L	11.6	16.4	20.8	24.4	25.7	25.1	25.4	26.6	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

APRIL — 1971

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
Mersa Matruh	4.9	3.8	6.0	30	28	19	13	10	4	3	61	3
Tahrir	2.7	2.0	3.4	30	22	10	8	4	2	0	64	12
Bahtim. . . .	2.6	1.6	3.6	30	21	10	7	1	0	0	49	12
Kharga . . .	3.9	2.9	5.0	30	18	12	2	0	0	0	36	3

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THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 14 NUMBER 5

MAY, 1971

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

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968, this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

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 "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

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

THE ARAB REPUBLIC OF EGYPT

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on tables please refer to Volume 14, Number 1 (January 1971).

GENERAL SUMMARY OF WEATHER CONDITIONS

MAY — 1971

Changeable with deficient rainfall. A prolonged khamsin heat wave during the first third of the month.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather during this month was changeable in temperature, intervened with four variant khamsin heat waves. The first wave was of long duration and prevailed most of the first third of the month, the other three heat waves were of short durations . The break down of the heat waves was followed by mild weather. The month was generally humid in north of the country and markedly dry in the south.

Precipitation during this month was confined to light rain over the Mediterranean district and few land localities round the 14th & 25th.

Rising sand was reported in several days over scattered places mainly in the Western Desert & Upper Egypt districts.

PRESSURE DISTRIBUTION

The outstanding pressure systems over the synoptic surface charts during this month were :

—High pressure over SW Russia and its extensions over Europe & the Mediterranean.

—Low pressure systems through Central Europe & its vicinities.

—Five secondary khamsin depressions.

—Monsoon trough of low pressure over Arabia & Sudan.

During this month five khamsin secondary depressions developed, four of which passed through the country.

The first and second khamsin depressions originated over NW Libya on the 1st & 4th respectively and proceeded eastwards. The first depression filled up east of the Gulf of Sidra on the 4th. The second depression continued its eastward track and traversed north of the country on the 6th. This was associated by the northward elongation of the Sudan trough till the 8th.

The third khamsin depression developed as a desert depression over North Algiers on the 9th. It moved slowly eastwards reaching the Western Desert on the 13th when it was associated with the northward elongation of Sudan trough and passed through the northern parts of the country on the 14th.

The fourth khamsin depression appeared over NW Libya on the 20th, it took its track eastwards and traversed north of the country on the 23rd. Its transit was followed by the northward elongation of the Sudan trough on the 24th & 25th.

The fifth and last khamsin depression during this month developed over North Algiers on the 26th, it proceeded eastwards and passed through the northern parts of the country on the 30th.

The barometric pressure over the country this month was subject to the above mentioned khamsin depressions, and the development of high pressure over East Mediterranean and NE Africa . It accordingly experienced four oscillations and reached minima round the 8th, 14th, 23rd & 29th.

In the 700 & 500 mb. levels the important features were the deep upper lows over North Atlantic & North Europe, their extended troughs or secondary upper lows over the middle latitudes and the high pressure system south of latitude 35°N. It is worthy to mention that three upper troughs traversed East Mediterranean & north of Egypt on the 9th, 15th & 25th.

SURFACE WIND

Light to moderate N/NW'ly winds prevailed most of this month and backed to W/SW in few days. Winds were occasionally fresh over scattered localities during few days. Calms were frequent in early morning intervals over scattered land localities.

TEMPERATURE

Maximum air temperature experienced a pronounced rise above normal during the prevailing khamsin heat waves round the periods (1st-8th), 14th, (23rd-25th) & 29th. During rest of the month, maximum air temperatures were slightly below normal. Maximum air temperatures ranged generally between 23° & 31°C in the northern parts, between 30° & 39°C in the central parts and between 37° & 43°C in the southern parts.

The absolute maximum air temperature for the country was 46.4°C reported at Aswan on the 30th.

Minimum air temperature oscillated moderately round normal in general, though in the majority it was above normal. Minimum air temperatures ranged generally between 12° & 20°C in the northern and central parts, and between 20° & 25°C in the southern parts.

The absolute minimum air temperature for the country was 10.3°C reported at Bahtim on the 1st.

PRECIPITATION

The monthly rainfall was subnormal & deficient in general. Light rain was reported round the 14th & 25th over the Mediterranean district and extended inland to few localities in the central parts.

The maximum daily rainfall was 5.7mm reported at Bahariya on the 25th.

The maximum monthly rainfall was 6.8 mm reported also at Bahariya.

Chairman (M. F. TAHA)

Board of Directors

Cairo, June 1972

SURFACE DATA

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

MAY — 1971

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	1011.2	—2.7	27.1	+0.9	17.3	+0.8	22.2	21.7	+0.8	16.7	+0.5	58	— 1	—	—	—	7.9
Mersa Matruh (A)	1011.8	—1.7	26.6	+1.1	15.7	+1.2	21.0	21.0	+0.9	17.3	+1.0	67	+ 1	334.7	426.1	79	7.4
Alexandria (A)	1011.3	—1.6	27.2	+0.6	16.3	—0.2	21.8	21.7	+0.3	17.7	0.0	66	— 1	354.3	425.6	83	6.1
Port Said (A)	1009.7	—2.8	26.7	+1.1	18.2	—1.4	22.4	21.9	—0.1	18.4	—0.6	68	— 2	352.9	425.6	83	5.6
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1010.6	—2.0	31.8	+0.1	14.6	+0.2	23.2	22.7	+0.1	16.5	+0.1	50	+ 1	354.6	424.5	84	7.7
Cairo (A)	1010.0	—2.2	33.3	+1.0	17.8	+0.4	25.6	25.3	+0.7	17.2	+0.2	40	— 3	—	—	—	19.7
Fayoum	—	—	34.9	+1.2	17.4	+0.2	26.2	26.1	+1.1	17.7	+1.7	41	+ 6	—	—	—	10.9
Minya (A)	1008.5	—2.5	35.9	+1.0	16.9	+0.5	26.4	26.7	+1.0	17.0	+0.4	33	— 3	358.3	419.4	84	16.1
Assyout (A)	1007.4	—3.3	36.8	+0.7	19.7	+0.5	28.2	28.5	+0.9	16.5	+0.8	24	+ 2	—	—	—	21.8
Luxor (A)	1006.9	—1.9	40.2	+1.4	20.5	+0.4	30.4	30.6	+0.5	17.7	+0.3	21	— 1	—	—	—	15.0
Aswan (A)	1006.8	—1.8	40.4	+2.3	22.7	+2.0	31.6	31.8	+1.8	16.6	+1.3	13	+ 1	—	—	—	27.6
Siwa	1010.0	—2.9	35.5	+1.3	18.0	+1.4	26.8	27.0	+1.4	16.3	+0.8	28	— 1	353.2	421.4	84	17.1
Bahariya	1009.3	—2.5	35.5	+1.1	18.9	+1.7	27.2	27.2	+1.5	15.4	—0.5	22	— 6	—	—	—	16.8
Farafra	1010.2	—3.4	36.4	+2.1	18.6	+1.9	27.5	27.6	+2.1	15.8	+1.3	22	— 1	—	—	—	20.4
Dakhla	1009.3	—1.1	37.7	+0.8	19.2	—0.3	28.4	29.0	+1.4	15.7	+0.7	17	+ 4	—	—	—	22.7
Kharga	1007.9	—2.4	38.9	+1.2	21.5	+0.6	30.2	30.8	+0.8	15.7	0.0	17	— 5	363.9	413.4	88	21.6
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1007.6	—1.7	31.3	+1.6	21.0	+0.6	26.2	26.5	+0.9	19.3	+1.3	49	+ 5	356.5	417.0	86	14.2
Quseir	1007.3	—1.8	29.8	—0.5	22.5	—0.3	26.2	26.5	—0.2	20.0	+1.4	53	+ 9	—	—	—	14.0

TABLE A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

MAY — 1971

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	39.8	22	21.7	12	16	9	1	0	0	17.1	—	20.8	21	13.4	9	0	0	0	0
Mersa Matruh (A)	36.2	6	22.2	12	14	8	1	0	0	13.7	—	18.7	22	12.0	19	0	0	0	0
Alexandria (A)	36.8	23	23.5	11	21	5	1	0	0	14.5	—	20.3	30	13.1	2	0	0	0	0
Port Said (A)	32.2	14	23.9	13	26	2	0	0	0	17.8	—	21.7	24	15.5	1	0	0	0	0
El rArish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	38.0	7	27.5	11	31	19	6	0	0	—	—	17.7	24	11.0	19	0	0	[illegible]	0
Cairo (A)	39.1	6	28.0	16	31	26	10	0	0	—	—	22.6	25	15.0	2,10	0	0	0	0
Fayoum	40.4	7	29.8	16	31	30	13	1	0	13.5	—	22.5	14	13.1	1	0	0	0	0
Minya (A)	40.8	7	31.4	11	31	31	14	3	0	15.2	—	22.2	14	13.4	11	0	0	0	0
Assyout (A)	42.6	7	32.0	16	31	31	20	5	0	17.3	—	24.8	26	15.2	11	0	0	0	0
Luxor (A)	45.2	14	34.5	16	31	31	39	16	1	16.5	—	25.2	30	17.2	18	0	0	0	0
Aswan (A)	46.4	30	35.0	17	31	31	30	16	1	—	—	26.6	30	19.0	25	0	0	0	0
Siwa	39.6	22	30.0	31	31	30	17	0	0	16.2	—	22.4	12	13.0	16	0	0	0	0
Bahariya	42.4	7	30.3	16,31	31	31	13	4	0	16.5	—	22.9	14	15.0	10	0	0	0	0
Farafra	43.8	25	31.4	11	31	31	19	5	0	17.9	—	26.0	14	13.5	10	0	0	0	0
Dakhla	44.4	29	32.8	31	31	31	23	9	0	19.0	—	24.0	30	14.2	17	0	0	0	0
Kharga	44.0	29	33.8	16	31	31	27	12	0	19.1	—	27.9	30	17.2	19	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	34.3	25	28.7	11	31	25	0	0	0	—	—	25.2	15	18.5	18	0	0	0	0
Quseir	36.6	15	27.4	12	31	9	1	0	0	19.1	—	26.0	26	20.6	4-18	0	0	0	0

TABLE A 3.—SKY COVER AND RAINFALL

MAY — 1971

Station	Mean Sky Cover (Oct)					Rainfall (mms)										
	00 U.T.	06 U.T.	12 U.T.	18 U T	Daily Mean	Total Amount	Dev. From Normal	Max. Fall in one day		Number of days with Amount of Rain						
								Amount	Dte	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	2.1	2.1	2.8	2.2	2.3	0.8	— 2.5	0.8	13	0	1	0	0	0	0	0
Mersa Matruh (A)	1.4	2.7	2.6	1.9	2.0	0.4	— 2.1	0.4	13	1	1	0	0	0	0	0
Alexandria (A)	2.4	2.5	2.4	2.1	2.3	1.3	— 0.7	1.3	25	1	1	1	0	0	0	0
Port Said (A)	1.2	2.0	1.3	1.2	1.5	0.4	— 2.6	0.4	25	0	1	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.3	1.4	2.1	1.3	1.3	0.1	— 3.6	0.1	26	0	1	0	0	0	0	0
Cairo (A)	0.5	1.8	1.7	1.5	0.9	0.0	— 0.7	0.0	—	0	0	0	0	0	0	0
Fayoum	—	1.0	1.8	1.2	—	Tr.	— 1.3	Tr.	25	1	0	0	0	0	0	0
Minya (A)	0.7	0.8	1.5	1.0	1.0	0.5	— 0.1	0.5	25	0	1	0	0	0	0	0
Assyout (A)	0.5	0.5	1.1	0.7	0.7	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.2	0.8	0.8	0.7	0.7	0.0	— 0.4	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.2	0.7	1.0	0.6	0.7	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	0.5	1.1	1.5	1.4	1.1	0.0	— 1.8	0.0	—	0	0	0	0	0	0	0
Bahariya	0.6	1.3	1.5	1.1	1.2	6.8	+ 6.7	5.7	25	0	2	2	1	0	0	0
Farafra	—	0.9	1.1	0.3	—	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.4	0.3	0.3	0.3	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Kharga	0.2	0.6	1.0	0.5	0.5	0.0	— 0.3	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.7	1.1	1.4	1.3	1.1	0.1	— 0.3	0.1	25	0	1	0	0	0	0	0
Quseir	0.1	0.6	0.8	0.7	0.6	Tr.	0.0	Tr.	26	1	0	0	0	0	0	0

TABLE A 4—DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

MAY — 1971

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	1	0	0	0	0	0	0	0	0	0	2	0	0	16	0
Mersa Matruh (A)	1	0	0	0	0	0	5	1	0	0	4	1	0	18	0
Alexandria (A)	1	0	0	0	0	2	1	3	0	0	0	0	0	13	0
Port Said (A)	1	0	0	0	0	1	0	0	0	0	0	0	0	22	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1	0	0	0	0	0	5	0	0	0	0	0	0	25	0
Cairo	0	0	0	0	0	0	6	0	3	0	3	1	0	23	1
Fayoum	0	0	0	0	0	0	0	0	0	0	1	1	0	—	—
Minya (A)	1	0	0	0	0	0	0	0	2	0	3	0	0	27	1
Assyout (A)	0	0	0	0	0	0	0	0	4	0	1	0	0	27	0
Luxor (A)	0	0	0	0	0	0	0	0	13	0	7	0	0	27	0
Aswan (A)	0	0	0	0	0	0	0	0	8	0	11	3	0	29	0
Siwa	0	0	0	0	0	0	0	0	0	0	0	2	0	24	0
Bahariya	2	0	0	0	0	0	0	0	0	0	3	1	0	27	0
Farafra	0	0	0	0	0	0	0	0	2	0	2	2	0	—	—
Dakhla	0	0	0	0	0	0	0	0	2	0	4	0	0	30	0
Kharga	0	0	0	0	0	0	0	0	0	0	8	0	0	28	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1	0	0	0	0	1	0	0	0	0	6	1	0	24	0
Quesir	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0

Table A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES MAY — 1971

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	29	3	0	1-10	35	58	125	132	63	11	8	5	16	28	70	63	614
				11-27	14	18	8	18	1	0	1	3	1	0	14	20	98
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**49**	**76**	**133**	**150**	**64**	**11**	**9**	**8**	**17**	**28**	**84**	**83**	**712**
Mreas Matruh (A)	36	0	0	1-10	46	39	15	47	60	41	15	7	19	44	30	53	416
				11-27	35	27	32	38	11	5	0	0	1	5	8	128	290
				28-47	0	0	0	2	0	0	0	0	0	0	0	0	2
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**81**	**66**	**47**	**87**	**71**	**46**	**15**	**7**	**20**	**49**	**38**	**181**	**708**
Alexandria (A)	3	0	0	1-10	132	63	20	15	36	37	22	16	9	28	86	146	610
				11-27	48	8	11	4	2	0	0	0	0	0	12	46	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	**180**	**71**	**31**	**19**	**38**	**37**	**22**	**16**	**9**	**28**	**98**	**192**	**741**
Port Said (A)	21	0	0	1-10	183	107	71	28	5	4	2	2	13	24	38	99	579
				11-27	17	15	17	10	8	5	9	2	4	6	12	39	144
				28-47	0	0	0	0	0	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**	**122**	**91**	**38**	**13**	**9**	**11**	**4**	**17**	**30**	**50**	**138**	**723**
Tanta	43	2	1	1-10	91	78	56	41	20	6	10	19	25	48	57	81	532
				11-27	51	23	11	13	1	0	0	0	6	1	21	39	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	**142**	**101**	**67**	**54**	**21**	**6**	**10**	**19**	**31**	**49**	**78**	**120**	**698**
Cairo	50	3	8	1-10	52	109	87	29	9	4	5	3	8	15	37	91	449
				11-27	61	62	37	14	3	1	1	6	7	1	15	26	234
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**113**	**171**	**124**	**43**	**12**	**5**	**6**	**9**	**15**	**16**	**52**	**117**	**683**
Fayoum	0	8	0	1-10	159	303	37	9	6	12	19	11	14	13	30	63	676
				11-27	9	41	1	0	0	0	0	2	2	2	0	3	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	**168**	**344**	**38**	**9**	**6**	**12**	**19**	**13**	**16**	**15**	**30**	**66**	**736**
Minya	5	20	0	1-10	202	41	7	6	8	22	12	5	17	19	21	106	466
				11-27	211	1	0	0	0	7	1	1	1	6	8	17	253
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All Speeds	**413**	**42**	**7**	**6**	**8**	**29**	**13**	**6**	**18**	**25**	**29**	**123**	**719**

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

MAY — 1971

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	
				1-10	43	15	7	17	26	14	16	6	25	146	125	126	566
				11-27	19	0	0	0	2	6	7	4	3	10	29	74	154
Assyout . . . . (A)	24	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**	**15**	**7**	**17**	**28**	**20**	**23**	**10**	**28**	**156**	**154**	**200**	**720**
				1-10	53	40	19	29	20	47	68	28	53	107	114	56	**634**
				11-27	1	2	3	0	0	0	0	1	2	18	22	4	53
Luxor . . . . . (A)	57	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	**54**	**42**	**22**	**29**	**20**	**47**	**68**	**29**	**55**	**125**	**136**	**60**	**687**
				1-10	199	72	17	19	20	21	26	15	11	11	27	112	550
				11-27	43	5	0	1	0	4	8	2	1	3	25	89	181
Aswan . . . . . (A)	4	8	0	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	**242**	**77**	**17**	**20**	**20**	**25**	**34**	**17**	**12**	**14**	**52**	**202**	**732**
				1-10	27	56	66	158	92	29	16	11	4	21	39	20	539
				11-27	12	13	19	32	46	5	4	0	1	4	26	15	177
Siwa	10	18	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	**39**	**69**	**85**	**190**	**138**	**34**	**20**	**11**	**5**	**25**	**65**	**35**	**716**
				1-10	48	55	42	56	35	39	64	40	36	47	82	136	680
				11-27	10	14	2	0	0	0	0	0	0	0	3	12	41
Bahariya	15	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	**58**	**69**	**44**	**56**	**35**	**39**	**64**	**40**	**36**	**47**	**85**	**148**	**721**
				1-10	196	109	25	6	18	15	26	11	7	23	40	95	**571**
				11-27	120	14	0	0	0	0	0	0	0	0	5	13	152
Kharga	3	1	17	28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**316**	**122**	**25**	**6**	**18**	**15**	**26**	**11**	**7**	**23**	**45**	**108**	**723**
				1-10	37	54	26	10	23	73	23	6	5	6	16	94	373
				11-27	137	56	2	1	4	7	5	0	0	2	13	110	337
Hurghada	20	8	0	28-47	3	0	0	0	0	0	0	0	0	0	0	3	6
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**177**	**110**	**28**	**11**	**27**	**80**	**28**	**6**	**5**	**8**	**29**	**207**	**716**
				1-10	125	132	72	26	21	11	66	28	13	14	28	85	621
				11-27	18	82	6	0	0	0	3	0	0	0	0	0	109
Quseir	11	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	**143**	**214**	**78**	**26**	**21**	**11**	**69**	**28**	**13**	**14**	**28**	**85**	**730**

UPPER AIR CLIMATOLOGICAL DATA

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

MAY — 1971

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	*1011mb	*1014mb	*1006mb	29	18.4	21.2	15.2	29	14.1
	1000	29	120	179	80	29	19.0	23.4	15.2	29	13.5
	850	29	1513	1570	1464	29	17.2	25.0	8.2	29	0.2
	700	28	3144	3236	3075	28	6.2	13.0	0.7	28	— 7.1
	600	27	4391	4497	4306	27	— 2.5	8.1	— 7.0	27	—15.5
	500	25	5817	5934	5701	25	—12.7	— 7.8	—17.5	25	—26.3
	400	25	7477	7695	7331	25	—25.7	—21.3	—31.0	24	—37.3
	300	23	9493	9652	9289	23	—41.8	—37.7	—48.5	22	—52.0
	250	22	10705	10880	10173	22	—50.6	—45.5	—53.9	22	—59.7
	200	22	12143	12366	11925	22	—56.3	—48.0	—63.0	15	—64.2
	150	20	13960	14106	13792	20	—58.4	—52.2	—62.0	8	—65.8
	100	18	16489	16626	16377	18	—64.2	—59.3	—67.7	2	—71.2
	70	17	18672	18806	18581	17	—63.7	—60.2	—68.1	—	—
	60	15	19627	19780	19530	15	—59.6	—60.8	—68.1	—	—
	50	15	20732	20886	20654	15	—61.7	—59.3	—64.4	—	—
	40	9	22220	22390	22150	9	—56.1	—48.1	—59.2	—	—
	30	8	23963	24097	23898	8	—53.7	—51.0	—55.1	—	—
	20	2	26592	26593	26591	2	—45.5	—43.0	—48.7	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	28	*993mb	*1000mb	*986mb	28	21.5	30.2	16.1	28	9.9
	1000	28	80	140	14	1	18.3	—	—	1	14.3
	850	28	1487	1532	1448	28	18.2	25.2	11.7	28	1.4
	700	28	3118	3168	3062	27	6.8	13.6	1.8	27	— 9.0
	600	28	4365	4425	4300	28	2.0	3.7	— 6.7	28	—16.2
	500	28	5796	5871	5710	28	—12.1	— 6.9	—15.7	28	—26.5
	400	27	7454	7582	7346	26	—25.0	—17.9	—29.0	26	—37.6
	300	26	9476	9570	9328	26	—41.2	—34.3	—45.8	26	—51.5
	250	24	10692	10925	10520	24	—49.2	—41.3	—55.0	24	—58.9
	200	24	12139	12395	11980	24	—54.4	—48.5	—62.0	21	—62.8
	150	23	13975	14226	13845	23	—57.8	—52.9	—61.9	16	—65.9
	100	23	16482	16676	16348	23	—66.4	—61.9	—72.3	—	—
	70	20	18595	18966	18524	20	—66.2	—63.8	—69.8	—	—
	60	18	19621	19970	19140	18	—63.9	—59.3	—68.7	—	—
	50	18	20732	21080	20572	18	—61.6	—57.2	—69.9	—	—
	40	16	22220	22550	22060	16	—57.2	—51.3	—60.6	—	—
	30	16	23952	24288	23782	16	—53.8	—50.9	—57.0	—	—
	20	10	26605	26914	26433	10	—50.8	—46.1	—63.5	—	—
	10	—	—	—	—	—	—	—	—	—	
Aswan 0000 U.T.	Surface	27	*983mb	*987mb	*979mb	27	26.6	30.5	21.8	27	1.5
	1000	27	46	81	04	—	—	—	—	—	—
	850	27	1481	1509	1452	27	24.2	30.0	17.3	26	— 1.2
	700	24	3138	3192	3109	24	11.1	16.6	5.7	23	—11.7
	600	21	4401	4449	4358	21	0.7	4.0	— 4.9	21	—18.2
	500	21	5838	5898	5778	20	— 9.7	— 7.3	—12.9	19	—28.6
	400	19	7514	7600	7448	18	—23.1	—19.3	—26.0	18	—37.0
	300	17	9565	9690	9486	17	—38.1	—30.9	—41.3	17	—52.3
	250	17	10799	10935	10706	17	—45.6	—38.9	—50.3	15	—59.0
	200	17	12285	12458	12136	16	—52.2	—46.3	—57.0	16	—64.8
	150	16	14094	14284	13955	16	—60.0	—56.5	—64.9	11	—69.8
	100	14	16548	16700	16452	14	—70.9	—67.0	—75.6	—	—
	70	12	18669	18756	18577	12	—68.8	—66.2	—74.2	—	—
	60	7	19639	19720	19550	7	—66.8	—64.6	—67.3	—	—
	50	7	20711	20802	20625	7	—63.1	—59.1	—65.2	—	—
	40	4	22215	22270	22160	4	—61.2	—59.5	—62.0	—	—
	30	4	23930	23994	23870	4	—55.8	—54.8	—56.4	—	—
	20	3	26531	26618	26487	3	—50.5	—48.2	—52.6	—	—
	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 B 1 (*contd.*)—**MONTHLY MEANS, ABSOLUTE HIGHER AND LOWER VALUES OF ALTITUDE, AIR TEMPERATURE AND DEW POINT AT STANDARD AND SELECTED PRESSURE SURFACES**

MAY — 1971

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) 1200 U.T.	Surface	30	1011mb.*	1016mb.*	1005mb.*	30	24.8	32.8	20.8	30	15.5
	1000	30	126	166	71	30	23.6	30.4	17.6	29	14.1
	850	30	1528	1581	1473	30	17.2	23.5	10.4	29	1.1
	700	29	3154	3237	3090	29	5.5	11.4	— 6.9	28	— 9.5
	600	29	4398	4499	4313	29	— 3.4	5.6	—10.1	27	—17.2
	500	28	5819	5938	5713	28	— 12.5	— 8.6	—17.1	26	—26.9
	400	26	7488	7628	7349	26	— 25.3	—20.6	—29.3	25	—38.8
	300	26	9514	9676	9342	26	— 41.2	—34.5	—45.0	25	—50.8
	250	25	10728	10895	10544	25	— 49.6	— 41.5	—56.3	24	—60.5
	200	24	12165	12315	12001	24	— 55.5	—47.2	—63.2	15	—46.7
	150	22	13962	14127	13431	22	— 58.1	—52.0	— 63.0	8	—63.9
	100	17	16508	16618	16345	17	— 62.7	—55.9	—66.3	2	—65.4
	70	14	18689	18797	18511	14	— 64.5	— 62.0	—67.7	—	—
	60	11	19681	19840	19480	11	— 63.0	—61.2	—66.9	—	—
	50	11	20793	20881	20615	11	—59.7	—54.1	—62.8	—	—
	40	5	22110	22200	21980	5	— 57.5	—56.4	—58.9	—	—
	30	2	23928	24018	23839	2	—51.8	—48.8	—54.9	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	29	993mb*	999mb*	989mb*	29	31.7	37.8	25.3	29	6.3
	1000	29	89	131	32	—	—	—	—	—	—
	850	29	1502	1537	1456	29	18.4	27.1	9.9	29	— 3.0
	700	29	3130	3177	3074	28	6.8	12.7	2.0	27	—13.4
	600	29	4379	4453	4310	29	— 2.0	2.0	— 5.2	29	—20.2
	500	29	5804	5880	5719	29	—11.7	— 6.9	—16.0	29	—29.6
	400	28	7473	7571	7352	28	—25.1	—20.8	—37.1	28	—41.1
	300	26	9503	9630	9337	26	—40.6	—33.3	—43.6	26	—54.6
	250	25	10719	10897	10547	25	—49.2	—37.2	—52.4	25	—61.9
	200	23	12167	12415	11998	23	—54.4	—47.2	—62.1	19	—66.0
	150	22	14005	14270	13818	22	—56.9	—53.9	—60.1	14	—68.6
	100	21	16534	16759	16360	21	—65.1	—61.1	—69.0	—	—
	70	19	18707	18928	18558	19	—65.0	—62.2	—67.4	—	—
	60	16	19697	19900	19540	16	—62.7	—60.4	—66.0	—	—
	50	16	20784	20990	20648	16	—59.8	—57.2	—63.3	—	—
	40	11	22281	22350	22170	11	—55.3	—51.3	—59.8	—	—
	30	11	24047	24129	23904	11	—51.2	—48.7	—54.3	—	—
	20	8	26674	26814	26250	8	— 45.3	—42.7	—47.5	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Suracef	26	983m.b.*	988m.b.*	979m.b.*	26	39.1	46.0	34.6	26	3.8
	1000	26	38	82	01	—	—	—	—	—	—
	850	26	1497	1520	1465	26	25.3	32.2	19.8	26	—6.4
	700	24	3160	3204	3123	24	11.6	17.2	8.0	24	—15.5
	600	21	4429	4493	4377	21	2.0	6.2	— 0.9	21	—22.3
	500	20	5876	5983	5830	20	— 9.0	— 5.0	—12.0	20	—31.6
	400	19	7564	7673	7511	19	— 21.5	— 14.3	—23.9	19	—41.5
	300	16	9622	9789	9537	16	— 36.8	— 27.8	— 40.2	15	—55.5
	250	14	10860	11075	10756	14	— 44.0	— 31.7	— 49.0	14	—61.8
	200	13	12334	12580	12206	12	— 51.8	— 48.3	— 56.3	10	—67.3
	150	9	14201	14426	14021	9	— 58.1	— 54.0	— 61.9	6	—71.9
	100	7	16690	16844	16541	7	— 69.2	—63.1	— 75.3	—	—
	70	5	18837	18936	18714	5	— 70.6	— 67.0	— 74.9	—	—
	60	3	19820	20020	19690	3	— 61.6	— 58.0	— 64.5	—	—
	50	3	20881	21020	20770	3	— 58.5	— 57.1	— 60.5	—	—
	40	1	22540	—	—	1	—53.0	—	—	—	—
	30	1	24333	—	—	1	—45.1	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—

N = Number of observations of specified pressure surface.

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

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

MAY — 1971

	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 UT		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	3914 (27)	632 (27)	-13.2 (27)	4560	594	-26.0	3070	694	- 3.5	13207 (19)	204 (19)	-62.5 (19)	16499	100	-65.0	9990	270	-52.7	11559	—	295	105
	Helwan . . .	4072 (28)	622 (28)	-14.1 (28)	4920	560	- 9.9	3400	672	-16.3	12211 (21)	203 (21)	-57.3 (21)	16480	102	-72.4	9780	281	-49.3	14800	132	270	86
	Aswan . .(A)	4500 (21)	595 (21)	-18.0 (20)	4900	580	-19.1	3780	639	-17.7	14908 (9)	140 (9)	-65.8 (9)	16680	98	-75.2	10964	245	-45.4	11412	—	240	100
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	3964 (29)	669 (29)	-14.8 (27)	4700	585	-20.8	3090	700	- 8.2	11850 (20)	213 (20)	-56.6 (20)	13630	165	-63.4	10120	277	-43.0	13391	—	250	150
	Helwan . . .	4083 (29)	624 (29)	-18.2 (29)	4700	582	- 7.0	4010	624	-15.5	12489 (22)	197 (22)	-56.8 (22)	17180	91	-67.2	10340	264	-48.2	11220	230	270	75
	Aswan . .(A)	4693 (20)	552 (20)	-25.6 (20)	5180	552	-13.5	4300	609	-33.3	13466 (5)	177 (5)	-59.8 (5)	16450	107	-73.5	10400	267	-47.5	12457	194	252	92

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

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

MERSA MATRUH (A) — MAY 1971

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360)°																								Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	2	7	0	—	0	—	2	7	2	8	2	9	0	—	0	—	3	7	5	6	2	12	3	12	8	29	6
	1000	1	10	1	3	2	10	3	6	3	9	2	11	0	—	0	—	0	—	4	9	4	11	2	12	1	23	9
	850	4	16	0	—	2	26	3	14	1	7	0	—	1	8	1	20	1	12	0	—	1	22	8	18	0	22	17
	700	2	25	1	26	1	32	1	22	1	14	0	—	0	—	1	35	1	19	2	19	6	26	4	28	0	20	25
	600	2	39	3	16	0	—	0	—	0	—	0	—	0	—	0	—	3	24	2	23	9	29	1	22	0	20	27
	500	1	25	3	13	0	—	0	—	0	—	0	—	0	—	0	—	3	41	4	34	8	32	1	20	0	20	30
	400	2	22	1	9	0	—	0	—	0	—	0	—	0	—	0	—	2	27	5	27	7	34	1	30	0	18	28
	300	2	38	0	—	0	—	0	—	0	—	0	—	0	—	1	32	1	18	7	40	5	53	1	35	0	17	42
	250	2	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	44	4	47	4	42	0	17	43
	200	1	37	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	61	7	44	3	38	3	38	0	15	42
	150	1	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	44	5	38	3	37	2	28	0	13	36
	100	1	5	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	18	5	27	1	28	0	—	0	9	23
	70	0	—	0	—	0	—	0	—	0	—	0	—	1	6	0	—	2	9	0	—	0	—	0	—	1	4	6
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	0	—	0	—	0	—	1	2	7
	50	0	—	0	—	1	15	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	15
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	0	—	0	1	12
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	5	12	4	10	5	15	2	12	1	14	0	—	0	—	0	—	0	—	0	—	5	13	8	15	0	30	13
	1000	3	15	3	11	4	9	3	9	3	17	0	—	0	—	0	—	0	—	0	—	6	17	6	14	0	28	13
	800	3	12	1	9	1	27	3	17	2	7	0	—	1	30	1	21	4	12	5	15	3	17	5	13	0	29	15
	700	1	23	1	33	1	31	1	17	0	—	0	—	1	16	3	28	2	17	5	21	7	17	4	32	0	26	23
	600	0	—	2	16	1	27	0	—	0	—	0	—	0	—	0	—	5	33	9	33	6	26	4	32	0	27	26
	500	0	—	2	13	0	—	0	—	0	—	0	—	0	—	0	—	5	44	9	32	8	27	2	7	0	26	30
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	48	12	40	6	38	3	17	0	25	40
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	60	10	54	6	54	2	33	0	23	54
	250	1	25	0	—	0	—	0	—	0	—	0	—	0	—	1	112	4	66	9	57	5	58	1	53	0	21	60
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	68	7	50	3	44	2	32	0	15	50
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	56	7	40	5	46	1	32	0	14	42
	100	2	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	19	4	20	1	45	1	21	0	11	29
	70	0	—	0	—	1	8	0	—	0	—	1	10	0	—	1	9	0	—	0	—	0	—	0	—	0	3	9
	60	0	—	0	—	1	22	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	22
	50	0	—	0	—	0	—	0	—	0	—	0	—	1	8	0	—	0	—	0	—	0	—	0	—	0	1	8
	40	0	—	0	—	0	—	1	7	—	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	7
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

HELWAN — MAY 1971

Tiem	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360)°																								Number of Calm winds	Total Number of Observations (T N)	Mean Scalar wind Speed (Knots
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	3	8	12	10	2	8	2	8	0	—	0	—	0	—	1	5	0	—	0	—	1	5	4	7	3	28	8
	1000	1	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	8
	850	4	8	2	18	0	—	0	—	1	16	0	—	0	—	3	12	2	10	4	12	4	8	6	12	1	27	11
	700	3	13	0	—	1	43	0	—	0	—	0	—	0	—	1	26	3	14	11	16	3	19	3	17	2	27	16
	600	4	11	1	17	0	—	0	—	0	—	0	—	0	—	2	41	3	27	8	20	5	19	1	16	2	26	30
	500	2	12	2	10	1	33	0	—	0	—	0	—	0	—	2	12	3	38	8	23	4	22	2	24	0	24	22
	400	4	15	1	14	0	—	1	—	0	—	0	—	0	—	1	65	2	24	11	37	4	28	1	7	0	24	27
	300	2	22	1	11	0	—	0	—	0	—	0	—	0	—	3	34	2	33	7	42	6	39	1	14	0	22	35
	250	3	21	0	—	0	—	0	—	0	—	0	—	0	—	2	22	4	40	3	47	8	52	1	14	0	21	40
	200	1	38	0	—	0	—	0	—	0	—	0	—	0	—	1	22	5	39	7	41	3	55	4	24	0	21	38
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	38	6	38	2	52	3	19	0	19	39
	100	3	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	33	6	27	1	27	0	—	0	13	28
	70	0	—	0	—	0	—	0	—	1	6	0	—	0	—	1	49	0	—	2	12	0	—	0	—	0	4	20
	60	0	—	0	—	0	—	1	42	1	19	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	3	27
	50	0	—	0	—	1	7	0	—	1	23	0	—	0	—	0	—	1	41	0	—	0	—	0	—	0	3	24
	40	0	—	0	—	0	—	1	29	0	—	0	—	0	—	0	—	0	—	1	8	0	—	0	—	0	2	18
	30	0	—	0	—	0	—	0	—	1	7	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	7
	20	0	—	0	—	0	—	1	6	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	6
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	5	10	8	14	0	—	0	—	1	3	0	—	0	—	1	6	2	6	4	5	2	9	6	8	0	29	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	4	10	2	8	4	8	1	46	1	11	1	9	0	—	3	3	4	11	3	6	4	8	2	10	0	29	10
	700	3	18	1	7	0	—	1	8	0	—	1	6	1	4	3	15	3	18	7	13	4	12	5	16	0	29	14
	600	3	7	1	11	0	—	0	—	0	—	0	—	1	11	2	24	4	23	8	25	6	14	4	13	0	29	16
	500	1	14	1	9	0	—	0	—	0	—	0	—	0	—	3	26	5	34	10	18	7	20	2	8	0	29	21
	400	1	24	1	16	0	—	0	—	0	—	0	—	0	—	1	17	6	34	12	27	4	37	2	15	0	27	28
	300	2	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	26	7	32	9	34	0	—	0	24	30
	250	2	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	34	11	36	6	40	0	—	0	23	35
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	34	8	43	6	47	2	21	0	20	38
	150	0	—	0	—	0	—	0	—	0	—	1	43	0	—	1	20	3	46	7	31	4	42	2	22	0	18	52
	100	2	7	0	—	0	—	0	—	0	—	0	—	0	—	1	40	1	61	6	26	1	28	0	—	0	11	27
	70	0	—	0	—	0	—	0	—	0	—	0	—	2	13	0	—	0	—	2	12	0	—	0	—	0	4	12
	60	0	—	0	—	0	—	0	—	1	10	1	14	0	—	0	—	0	—	0	—	0	—	0	—	0	2	12
	50	0	—	0	—	0	—	1	11	0	—	1	6	0	—	0	—	0	—	0	—	0	—	0	—	0	2	8
	40	0	—	0	—	0	—	0	—	2	9	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	9
	30	0	—	0	—	1	9	0	—	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	14
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

ASWAN (A) — MAY 1971

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	11	11	4	10	1	9	2	11	2	7	0	—	0	—	0	—	0	—	1	6	1	19	2	16	3	27	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	11	4	17	4	14	0	—	0	—	0	—	0	—	0	—	2	10	1	13	5	12	5	15	0	24	13
	700	0	—	0	—	1	6	0	—	0	—	0	—	1	4	1	20	5	15	4	17	3	19	6	15	0	21	[illegible]
	600	0	—	1	9	0	—	0	—	0	—	0	—	0	—	5	13	2	14	3	15	5	21	1	12	1	17	15
	500	3	17	1	12	0	—	0	—	0	—	0	—	0	—	2	22	2	30	3	15	3	12	1	16	0	15	18
	400	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	28	3	10	2	19	3	15	0	13	20
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	33	4	21	1	13	3	24	0	11	25
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	55	6	42	0	—	4	24	0	11	36
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	54	3	52	1	14	3	27	0	11	45
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	56	2	36	4	34	0	—	0	10	43
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	19	2	24	2	24	1	30	0	—	0	6	24
	70	0	—	0	—	1	10	0	—	2	8	0	—	0	—	0	—	1	10	0	—	0	—	0	—	0	4	9
	60	0	—	0	—	0	—	1	10	1	13	0	—	0	—	0	—	0	—	1	5	0	—	0	—	0	3	9
	50	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	10
	40	0	—	0	—	0	—	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	18
	30	0	—	0	—	0	—	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	23
	20	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	20
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 T.U.	Surface	10	9	3	6	0	—	1	7	1	10	2	8	1	10	1	10	0	—	2	11	0	—	4	12	1	26	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	5	9	3	9	0	—	0	—	2	6	1	4	1	9	1	3	2	10	0	—	5	7	6	15	0	26	9
	700	1	7	1	2	0	—	0	—	0	—	1	5	0	—	1	17	4	14	5	13	6	19	5	18	0	24	15
	600	1	9	2	8	0	—	0	—	0	—	0	—	0	—	2	20	4	26	5	10	4	26	2	10	0	20	17
	500	2	23	1	17	0	—	0	—	0	—	0	—	0	—	1	35	5	18	6	23	4	31	1	36	0	20	24
	400	5	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	28	6	24	3	36	0	—	0	18	25
	300	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	45	4	34	3	45	3	24	0	15	34
	250	1	31	0	—	0	—	0	—	0	—	0	—	0	—	1	59	1	41	4	23	4	40	2	25	0	13	33
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	43	5	33	3	34	1	23	0	12	35
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	51	2	30	2	41	0	—	0	7	42
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	18	1	20	0	—	1	8	0	4	16
	70	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	—	1	19	0	—	0	—	0	—	0	2	20
	60	0	—	0	—	0	—	0	—	0	—	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	1	16
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = The number of cases the element has been observed 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 — MAY 1971

For the month as a whole, the mean daily air temperature and relative humidity were slightly above normal. The total monthly rianfall was only 0.4mm. against 2.5mm. for normal.

The month was characterized by three heat waves in the periods (1st-6th), (20th-24th) and (28th-29th). The first heat wave was the most excessive and yielded the highest maximum air temperature for the month (36.2°C) on the 6th. The break down of these heat waves was followed by mild periods with maximum air temperatures slightly below normal.

The extreme maximum soil temperatures were lower than the corresponding values of last May at all depths between 2 and 100cm., apart form the 50cm. depth where its value was higher by 1.0°C., the departures varied between 1.5°C at 2cm. and 0.2°C at 100cm. The extreme minimum soil temperatures were higher than last May at all depths except at 100cm. depth where its values was lower by 0.6°C; the departures varied between 2.5°C at 2cm. and 0.7°C at 50cm.

The mean daily actual sunshine duratiion was 1.8 hours more than the corresponding value of May 1970; the mean daily wind speed at 1.5m. and Pan evaporation were less by 0.7m./sec. and 2.91mm. respectively.

TAHRIR — MAY 1971

For the month as a whole, the mean daily air temperature and relative humidity were slightly above normal. The month was rainless apart form trace on tthe 25th, 28th and 29th.

Two pronounced heat waves were experienced in the periods (1st-7th) and (22nd-25th). The first heat wave was the more excessive and yielded the highest maximum air temperature for the month (38.8°C) on the 6th. During rest of the month, mild weather prevailed.

The extreme maximum soil temperatures were lower than the corresponding values of last May at depths between 2 and 20cm with departures between 3.1°C at 10cm. and 0.4°C at 20cm. At 50 and 100cm. depths the extreme soil maxima were higher than last May by 1.3°C and 1.0°C respectively. The extreme minimum soil temperatures were higher than last May at all depths except at 100cm. depth where it was lower by 0.8°C; the departures vaired between 3.9°C at 2cm. and 0.9°C at 50cm.

The daily mean actual sunshine duration was more than the corresponding value of May 1970 by 0.3 hour; the daily mean wind speed at 1.5m. and Pan evaporation were less by 0.3 m./sec. and 0.35mm. respectively.

BAHTIM — MAY 1971

For the month as a whole, the mean daily air temperature and relative humidity were slighlty higher than last May ; and weather was rainless apart from trace on the 13th.

The month was characterized by three heat waves in the periods (3rd-8th), (23rd-25th) and 29th. The first heat wave was the most excessive and yielded the highest maximum air temperature for the month (39.4°C) on the 7th. During rest of the month mild weather prevailed.

The extreme maximum soil temperatures were slightly lower than the corresponding values of last May at 2 and 100cm. depths, the same at 5 and 10cm. depths and slightly higher at 20 and 50cm. depths ; the departures varied between 0.1°C and 0.4°C. The extreme minimum soil temperatures were higher than the corresponding values of last May at shallow depths between 2 and 10cm. with departures between 0.3°C at 2cm. and 1.3°C at 5cm. At deeper depths between 20 and 100cm. the extreme soil minima were lower than last May with departures between 0.4°C at 20cm. and 1.6°C at 50cm.

The daily mean actual sunshine duration was more than the corresponding value of May 1970 by 0.5hour, and the daily mean Pan evaporation was less by 0.67mm.

KHARGA — MAY 1971

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

The month was characterized by three pronounced heat waves in the periods (1st-9th), (13th-14th) & (23rd-29th). The last heat wave yielded the highest maximum air temperature for the month (44.0°C) on the 29th. The break down of these heat waves was followed by mild periods with subnormal maximum air temperatures.

The extreme maximum soil temperatures were lower than the corresponding values of last May at all depths apart from the 100cm. depth where its value was the same ; the departures varied between 4.5°C at 2cm. and 0.2°C at 50cm. The extreme minimum soil temperatures were higher than last May at all depths apart from the 100cm. depth where its value was slightly lower (0.8°C) ; the departures varied between 4.4°C at5cm. and 0.4°C at 50cm

The daily mean values of actual sunshine duration, wind speed at 1.5m. and Pan evaporation were less than the corresponding values of May 1970 by 0.1 hour, 1.0.m./sec. and 2.84 mm. respectively.

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

MAY — 1971

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. . .	26.6	15.7	21.0	18.2	22.0	24.0	24.0	24.0	24.0	23.0	13.1	3.2	0.7	0.03	0.0	0.0
Tahrir	32.7	15.0	23.3	18.8	25.0	24.0	24.0	24.0	24.0	22.8	15.0	9.5	3.3	0.5	0.0	0.0
Bahtim	32.8	13.7	23.1	18.0	25.0	24.0	24.0	24.0	24.0	20.8	14.9	10.0	3.8	0.6	0.0	0.0
Kharga	38.9	21.5	30.8	27.1	32.1	24.0	24.0	24.0	24.0	24.0	23.7	19.4	12.5	6.3	1.5	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.

MAY — 1971

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 . . .	36.2	6	22.2	12	18.7	22	12.0	19	8.6	19	—	—
Tahrir	38.8	6	28.9	10	18.5	14	12.4	19	11.0	19	—	—
Bahtim, ...	39.4	7	28.4	16	18.9	14	10.3	1	7.4	1	—	—
Kharga	44.0	29	33.8	16	27.9	30	17.2	19	14.5	18	—	—

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

MAY — 1971

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	577.2	334.7	426.1	79	73	62	20	24	13.3	14.0	18.1	13	5.8	1	7.2	8.56	0.4	0.4	13
Tahrir. .	659.7	354.2	424.3	83	59	32	18	25	11.8	10.7	15.9	8	8.5	23	9.4	9.90	Tr.	Tr.	25,28,29
Bahtim .	669.5	347.8	422.9	82	54	28	12	29	10.5	9.6	15.6	8	5.7	29	11.8	10.75	Tr.	Tr.	13
Kharga .	573.2	363.9	413.4	88	19	12	5	29	6.0	6.1	12.2	9	2.6	5	21.5	18.88	0.0	0.0	—

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

MAY — 1971

STATION	Highest (H) Lowest (L)	Extreme soil tempetature (°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	40.7	36.9	31.8	27.0	25.3	22.8	21.2	—	—	—	—	—	—	—	—	—
	L	20.3	19.4	19.7	22.1	21.9	20.3	20.0	—	—	—	—	—	—	—	—	—
Tahrir	H	52.2	45.8	37.5	33.3	29.9	27.6	25.2	24.0	—	—	—	—	—	—	—	—
	L	23.2	24.1	23.2	24.6	25.3	23.5	21.7	21.9	—	—	—	—	—	—	—	—
Bahtim . . .	H	54.6	44.4	36.4	31.5	28.1	25.8	23.8	23.3	—	—	—	—	—	—	—	—
	L	22.4	22.2	22.6	25.0	23.7	22.6	22.6	23.0	—	—	—	—	—	—	—	—
Kharga. . . .	H	57.9	49.5	42.2	36.2	33.3	30.3	27.8	27.3	—	—	—	—	—	—	—	—
	L	17.8	23.4	27.5	30.0	29.2	26.8	26.2	26.6	—	—	—	—	—	—	—	—

TABLE C 5.—SURFACE WIND

MAY — 1971

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
Mersa Matruh.	3.8	2.5	5.2	31	28	11	2	1	1	0	39	13
Tahrir	2.2	1.5	3.0	31	18	3	0	0	0	0	31	14
Bahtim	2.4	1.6	3.3	31	19	4	0	0	0	0	27	3,5
Kharga . . .	3.6	3.0	4.3	27	17	8	1	0	0	0	33	1

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

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

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968, this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

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 "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 14 NUMBER 6

JUNE, 1971

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on the tables please refer to Volume 14, Number 1 (January 1971).

GENERAL SUMMARY OF WEATHER CONDITIONS

JUNE 1971

Changeable with a pronounced heat wave during the third week.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather during this month was mostly mild & humid in the northern parts, rather hot in the middle parts and remarkably hot and dry in the southern parts. The month was intervened with three short heat waves round the 6th, 8th & 28th and a remarkable heat wave in the period (16th - 20th).

Rising sand occurred during several days in scattered localities, mainly in the Mediterranean, Upper Egypt & Western Desert districts.

PRESSURE DISTRIBUTION

The outstanding features of pressure distribution over the synoptic surface charts this month were :

—The Atlantic anticyclone and its extensions through Europe.

—Low pressure systems through North & Central Europe.

—A ridge of high pressure over Central Mediterranean and NE Africa.

—The complex monsoon low pressure over Iraq, Arabia & Sudan.

—Two coastal khamsin secondary depressions.

The first khamsin depression in this month appeared as a desert depression over North Algiers on the 3rd, proceeded along the coast of North Africa, traversed East Mediterranean on the 6th.

The second khamsin depression appeared over eastern parts of the Libyan Desert on the 7th, moved eastwards and traversed Middle Egypt on the 9th.

The barometric pressure over the country experienced six consecutive falls during this month. Two of these falls associated the transit of the above mentioned two khamsin depressions. The other four pressure falls were due to the westward elongations of the complex monsoon trough over Iraq towards East Mediterranean round the periods (11th- 12th), (17th - 20th), (23rd - 24th) & (27th - 30th). These elongations associated the approach and transits of deep low pressure troughs through the Black Sea area and its vicinities.

Apart from these pressure falls, high pressure over Central Mediterranean & NE Africa extended eastwards over East Mediterranean where the barometric pressure experienced rises above normal.

In the 700 & 500 mbs levels the important upper features of pressure patterns were :

—Two upper lows over North Atlantic and North Russia.

—Secondary upper troughs or lows through middle latitudes, passing through East Mediterranean and its vicinities on the 3rd, 7th, 14th & 22nd

—Subtropical high pressure belt south of latitude 30°N

SURFACE WIND

Light to moderate N/NWly winds prevailed most of this month. Winds were fresh or strong during several days in scattered localities mainly in the Mediterranean, Red Sea and Western Desert districts. Calms were frequent most of night and early morning intervals in scattered places.

TEMPERATURE

Maximum air temperature was oscillatory with a moderate variability particularly during period (16th - 20th). It exceeded its normal during the heat waves.

Maximum air temperature values ranged generally between 26° & 31°C in the northern parts, between 32° & 38°C in the middle parts and between 38° and 44°C in the southern parts.

The absolute maximum air temperature for the Country was 46.4°C reported at Luxor on the 19th.

Minimum air temperature oscillated round normal in the northern parts and mostly above normal in the middle and southern parts; and the departures from normal were slight to moderate.

Minimum air temperature values ranged most of the month between 16° & 21°C in the northern and middle parts and between 21° & 26°C in the southern parts.

The absolute minimum air temperature for the Country was 12.4°C reported at Bahtim on the 2nd.

PRECIPITATION

This month was rainless.

Cairo, June 1972

Chairman (M. F. TAHA)

Board of Directors

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

JUNE — 1971

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation (mms) Mean
			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	1012.4	— 0.3	30.0	+ 0.5	19.9	+ 0.1	25.0	24.5	— 0.2	18.6	— 1.1	54	— 7	—	—	—	10.2
Mersa Matruh . (A)	1012.3	— 0.3	27.9	— 0.1	18.3	+ 0.1	23.1	22.9	— 0.4	19.5	— 0.1	70	+ 1	360.9	425.5	82	8.5
Alexandria . . (A)	1011.3	— 0.4	28.6	+ 0.2	20.4	+ 0.2	24.5	24.0	— 0.2	20.3	— 0.2	70	— 1	365.5	424.1	86	6.4
Port Said . . . (A)	1009.3	— 1.6	29.5	+ 1.0	20.8	— 1.6	24.5	24.5	— 0.5	20.5	— 0.9	68	— 3	367.5	424.1	87	5.9
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1010.2	— 0.9	32.2	— 1.8	17.5	+ 0.1	24.8	24.6	— 1.3	19.0	— 0.6	56	+ 3	338.8	422.4	80	7.2
Cairo . . . . . (A)	1010.2	— 0.6	34.5	— 0.2	19.8	— 0.3	27.2	26.6	— 0.6	19.3	— 0.3	47	+ 1	—	—	—	17.8
Fayoum	—	—	36.0	0.0	18.9	— 1.0	27.4	27.4	— 1.5	19.2	— 0.3	42	+ 5	—	—	—	11.8
Minya . . . . (A)	1008.8	— 0.9	36.3	— 0.1	18.7	— 0.3	27.5	27.7	— 0.1	18.5	— 0.5	37	— 3	377.3	416.1	91	17.7
Assyout . . . (A)	1007.0	— 1.9	37.5	— 0.2	20.6	— 1.0	29.0	29.0	— 1.0	17.8	— 0.3	29	+ 3	—	—	—	23.3
Luxor . . . . (A)	1006.1	— 0.6	41.6	+ 0.6	22.3	— 0.3	32.0	31.7	— 0.9	19.2	— 0.1	25	+ 2	—	—	—	15.3
Aswan . . . . (A)	1005.9	— 0.2	41.7	— 0.5	24.5	+ 0.3	33.1	33.1	— 0.8	17.3	— 0.2	13	+ 1	—	—	—	29.6
Siwa	1011.5	— 0.3	37.5	+ 0.2	19.3	— 0.1	28.4	28.7	— 0.6	18.5	+ 0.2	32	+ 2	371.2	416.8	89	17.1
Bahariya	1010.3	+ 0.4	36.3	— 0.2	19.7	+ 0.2	28.0	28.2	— 1.0	17.0	— 1.4	27	— 3	—	—	—	19.4
Farafra	1011.1	— 0.4	37.3	— 0.4	19.6	— 0.6	29.0	28.8	— 0.7	16.9	0.0	24	+ 2	—	—	—	23.9
Dakhla	1009.4	+ 0.6	38.5	0.0	21.3	— 1.2	29.9	30.4	— 0.7	17.2	0.0	20	+ 2	—	—	—	25.6
Kharga	1007.8	0.0	39.8	+ 0.6	23.8	+ 0.6	31.8	32.0	— 0.5	17.0	— 1.0	20	0.0	356.5	409.8	87	25.2
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada . . .	1006.8	0.0	32.8	+ 0.9	23.5	— 0.1	28.2	28.4	— 0.2	19.9	— 0.5	42	— 2	375.9	413.6	91	16.7
Quseir	1006.3	— 0.8	30.9	— 1.5	25.2	— 0.3	28.0	28.5	— 0.7	20.3	— 0.5	44	0.0	—	—	—	20.2

Table A2.– MAXIMUM AND MINIMUM AIR TEMPERATURES

JUNE — 1971

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	41.1	5	24.9	3	29	12	2	1	0	19.2	—	27.7	18	14.0	1	0	0	0	0
Mersa Natruh (A)	39.6	5	24.5	3	27	4	2	0	0	16.9	—	21.6	29	14.6	2	0	0	0	0
Alexandria (A)	33.3	5,18	25.0	1	29	6	0	0	0	19.4	—	23.6	19	14.8	3	0	0	0	0
Port Said (A)	35.6	20	25.8	4	30	8	1	0	0	20.2	—	23.2	19	18.5	3	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	37.3	19	27.8	4	30	24	4	0	0	—	—	20.2	29	14.0	2	0	0	0	0
Coiro (A)	40.4	18	29.4	1-2	30	28	11	1	0	—	—	22.4	9	17.1	2	0	0	0	0
Fayoum	41.5	20	30.6	1	30	30	21	3	0	15.4	—	22.6	19	15.2	5	0	0	0	0
Minya (A)	41.6	19	31.2	1	30	30	18	5	0	17.3	—	22.0	19	14.8	3	0	0	0	0
Assyout (A)	43.6	18	31.3	4	30	30	22	9	0	18.0	—	23.5	9	17.7	2	0	0	0	0
Luxor (A)	46.4	19	35.0	4	30	30	29	21	2	18.0	—	25.3	21	18.8	2	0	0	0	0
Aswan (A)	45.6	19	34.6	2	30	30	29	23	4	—	—	27.1	19	20.0	2	0	0	0	0
Siwa	43.9	5	30.0	1	30	29	24	7	0	17.4	—	24.5	20	14.6	1	0	0	0	0
Bahariya	41.4	20	31.0	1	30	30	21	4	0	18.0	—	24.6	6	15.3	1	0	0	0	0
Farafra	41.8	20	32.1	1	30	30	23	6	0	18.9	—	23.9	20	15.4	2	0	0	0	0
Dakhla	45.8	7	31.8	1	30	30	25	9	1	21.4	—	29.4	21	13.9	3	0	0	0	0
Kharga	45.6	20	33.2	4	30	30	27	14	1	21.9	—	29.2	21	18.0	3	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	36.7	20	30.2	23	30	30	4	0	0	—	—	25.7	14,17	19.8	6	0	0	0	0
Quseir	34.3	28	28.3	2	30	20	0	0	0	22.1	—	26.6	19	22.0	3	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

JUNE — 1971

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 (A)	0.2	0.2	0.7	0.2	0.3	0.0	-0.1	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	1.4	2.7	0.9	1.9	1.4	0.0	-3.1	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	2.2	2.3	1.4	1.8	1.9	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Port Said (A)	1.2	1.7	0.4	0.8	1.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.4	1.5	0.5	0.0	0.5	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Cairo (A)	0.9	2.1	0.5	0.0	0.8	0.0	—0.2	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.3	0.1	0.1	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.0	0.4	0.2	0.3	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.1	0.0	0.0	0.0	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.0	0.2	0.2	0.2	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	0.3	0.1	0.3	0.0	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Bahariya	0.0	0.1	0.0	0.1	0.0	0.0	—0.2	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.2	0.1	—	—	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	—Tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.0	0.1	0.1	0.1	0.1	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	—Tr.	0.0	—	0	0	0	0	0	0	0

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

JUNE — 1971

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	2	0	0	29	0
Mersa Matruh (A)	0	0	0	0	0	0	1	1	0	0	9	2	0	21	0
Alexandria (A)	0	0	0	0	0	0	0	1	0	0	1	1	0	17	0
Port Said (A)	0	0	0	0	0	0	0	0	1	0	2	0	0	27	—
Al Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	4	1	0	0	1	0	0	30	0
Cairo (A)	0	0	0	0	0	0	10	1	7	0	4	1	0	29	0
Fayoum	0	0	0	0	0	0	0	0	1	0	1	0	0	29	—
Minya (A)	0	0	0	0	0	0	0	0	2	0	9	0	0	30	0
Assyout (A)	0	0	0	0	0	0	0	0	2	0	2	0	0	30	0
Luxor (A)	0	0	0	0	0	0	0	0	10	0	5	0	0	30	0
Aswan (A)	0	0	0	0	0	0	0	0	7	0	15	2	0	30	0
Siwa	0	0	0	0	0	0	0	0	0	0	4	0	0	29	0
Bahariya	0	0	0	0	0	0	0	0	2	0	4	0	0	30	0
Farafra	0	0	0	0	0	0	0	0	1	0	6	0	0	—	—
Dakhala	0	0	0	0	0	0	0	0	1	0	8	0	0	30	0
Kharga	0	0	0	0	0	0	0	0	0	0	10	0	0	30	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	4	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 — 1971

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	11	7	8	1-10	71	90	39	30	20	6	6	8	2	24	58	56	410
				11-27	49	35	3	0	0	0	1	5	2	4	26	156	281
				28-47	0	0	0	0	0	0	0	0	1	0	0	2	2
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	120	125	42	30	20	6	7	13	5	28	84	214	694
Mersa Matruh (A)	0	0	0	1-10	24	10	1	1	4	9	7	4	16	93	87	67	323
				11-27	9	6	2	3	3	2	16	2	1	22	103	228	397
				28-47	0	0	0	0	0	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	16	3	4	7	11	23	6	17	115	190	295	720
Alexandria	1	0	0	1-10	71	4	8	3	8	9	5	12	6	28	79	155	388
				11-27	31	3	0	1	0	1	0	2	4	13	116	157	331
				28-47	0	0	0	0	0	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	7	8	4	8	10	5	14	10	41	195	312	719
Port Said (A)	22	0	0	1-10	115	35	4	14	5	3	3	9	21	84	123	152	568
				11-27	11	5	0	5	5	3	1	0	3	16	45	36	130
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	126	40	4	19	10	6	4	9	24	100	168	188	698
Tanta	12	0	0	1-10	46	30	9	2	7	12	12	22	63	95	124	121	543
				11-27	19	13	1	0	0	0	0	2	1	16	38	75	165
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	65	43	10	2	7	12	12	24	64	111	162	196	708
Cairo	53	8	24	1-10	80	54	38	3	2	2	0	5	8	53	69	99	413
				11-27	43	45	4	4	3	5	4	4	4	15	41	55	227
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	123	99	42	7	5	7	4	9	12	68	110	154	640
Fayoum	0	2	6	1-10	170	290	23	17	3	7	9	5	5	18	32	61	640
				11-27	7	44	1	0	0	0	0	1	1	3	5	10	72
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	177	334	24	17	3	7	9	6	6	21	37	71	712
Minya	4	0	0	1-10	221	23	2	0	1	15	9	3	4	5	7	52	342
				11-27	357	2	0	0	0	0	0	0	0	1	5	9	374
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	578	25	2	0	1	15	9	3	4	6	12	61	716
Asyout	13	0	0	1-10	26	11	3	4	5	7	3	1	2	90	148	89	389
				11-27	63	6	0	0	0	1	0	0	1	12	70	165	318
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	89	17	3	4	5	8	3	1	3	102	218	254	707

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

JUNE — 1971

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	63	0	1	1-10	25	29	10	9	13	37	65	24	43	109	166	78	608
				11-27	0	2	0	0	0	0	0	1	1	6	32	6	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	**25**	**31**	**10**	**9**	**13**	**37**	**65**	**25**	**44**	**115**	**198**	**84**	**656**
Aswan	0	1	120	1—10	198	48	14	11	12	5	2	2	5	12	29	140	478
				11—27	69	0	1	0	0	0	0	0	2	8	6	35	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	**267**	**48**	**15**	**11**	**12**	**5**	**2**	**2**	**7**	**20**	**35**	**175**	**599**
Siwa	4	16	24	1—10	63	97	87	57	31	13	14	8	7	22	44	76	519
				11—27	13	36	28	3	0	1	3	5	3	3	14	47	156
				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	**76**	**133**	**115**	**60**	**31**	**14**	**17**	**14**	**10**	**25**	**58**	**123**	**676**
Dakhla	4	5	0	1—10	76	36	22	16	6	10	16	16	33	54	116	209	610
				11—27	17	39	1	0	0	0	0	0	0	0	3	41	101
				28—47	0	0	0	0	0	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**	**75**	**23**	**16**	**6**	**10**	**16**	**16**	**33**	**54**	**119**	**250**	**711**
Kharga	9	10	0	1—10	132	57	7	4	7	8	1	3	8	10	15	93	345
				11—27	285	27	0	0	0	0	0	1	1	3	4	35	356
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**417**	**84**	**7**	**4**	**7**	**8**	**1**	**4**	**9**	**13**	**19**	**128**	**701**
Hurghada	15	0	0	1—10	18	32	11	1	5	24	11	0	0	0	17	69	188
				11—27	197	63	0	0	0	5	1	0	0	0	34	201	501
				28—47	9	0	0	0	0	0	0	0	0	0	0	7	16
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**224**	**95**	**11**	**1**	**5**	**29**	**12**	**0**	**0**	**0**	**51**	**277**	**705**
Quseir	6	4	0	1—10	161	163	23	18	5	6	24	9	6	3	22	47	487
				11—27	57	163	2	0	0	0	0	0	0	0	0	1	223
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**218**	**326**	**25**	**18**	**5**	**6**	**24**	**9**	**6**	**3**	**22**	**48**	**710**

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 PRESURE SURFACES

JUNE — 1971

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 . . .	28	1012m.b.*	1015m.b.*	1007m.b.*	28	20.3	24.0	17.2	28	16.8
	1000 . . .	28	130	159	89	28	20.8	24.6	17.6	28	16.5
	850 . . .	28	1535	1585	1499	28	19.1	24.8	11.0	28	— 1.3
	700 . . .	28	3177	3251	3111	28	10.3	23.5	1.0	28	—12.4
	600 . . .	28	4433	4532	4343	28	2.0	6.6	— 5.7	27	—19.5
	500 . . .	27	5874	5985	5634	27	— 7.9	— 3.0	—14.9	27	—28.7
	400 . . .	26	7579	7729	7420	26	—20.2	—16.3	—27.5	25	—38.3
	300 . . .	23	9662	9835	9454	23	—33.1	—27.7	—38.6	22	—49.6
	250 . . .	21	10940	11108	10705	21	—40.6	—38.3	—44.5	19	—56.2
	200 . . .	19	12431	12608	12205	19	—50.6	—41.7	—53.6	16	—64.6
	150 . . .	17	14261	14434	14075	17	—62.7	—57.7	—64.7	1	—71.7
	100 . . .	16	16695	16904	16545	16	—74.1	—69.3	—78.7	—	—
	70 . . .	15	18774	18856	18606	15	—69.4	—64.4	—72.4	—	—
	60 . . .	14	19741	19810	19650	14	—64.7	—62.5	—68.4	—	—
	50 . . .	14	20839	20917	20750	14	—60.1	—57.5	—61.9	—	—
	40 . . .	14	22349	22460	22210	14	—56.9	—51.8	—59.4	—	—
	30 . . .	14	24084	24197	23962	14	—52.9	—45.0	—55.7	—	—
	20 . . .	10	26753	26895	26617	10	—48.6	—41.3	—52.6	—	—
	10 . . .	1	31197	—	—	1	—45.9	—	—	—	—
Helwan 0000 U.T.	Surface . . .	28	994m.b.*	999m.b.*	989m.b.*	28	21.8	27.4	18.6	28	14.9
	1000 . . .	28	90	132	35	—	—	—	—	—	—
	850 . . .	28	1496	1526	1447	27	18.4	24.8	11.0	27	1.3
	700 . . .	28	3138	3183	3074	28	10.3	14.5	4.2	28	— 8.8
	600 . . .	28	4404	4472	4319	28	2.8	8.1	— 4.3	28	—15.1
	500 . . .	28	5855	5934	5736	28	— 7.2	— 2.8	—13.2	28	—23.9
	400 . . .	28	7558	7655	7402	28	—18.8	—14.3	—23.7	28	—34.0
	300 . . .	27	9657	9753	9483	27	—30.4	—26.9	—35.7	27	—44.0
	250 . . .	26	10935	11044	10751	26	—38.3	—35.0	—43.1	26	—51.1
	200 . . .	26	12435	12548	12260	26	—49.1	—46.5	—51.5	26	—60.2
	150 . . .	25	14276	14402	14099	25	—61.4	—58.9	—64.0	3	—67.8
	100 . . .	25	16720	16855	16549	25	—73.9	—67.5	—77.7	—	—
	70 . . .	23	18804	18926	18670	23	—69.7	—62.4	—74.9	—	—
	60 . . .	20	19806	20190	19600	20	—65.8	—61.4	—75.7	—	—
	50 . . .	20	20868	20982	20720	20	—60.8	—59.0	—63.1	—	—
	40 . . .	15	22369	22540	22200	15	—57.1	—54.7	—59.0	—	—
	30 . . .	15	24099	24234	23930	15	—54.1	—52.7	—57.9	—	—
	20 . . .	11	26747	26828	26671	11	—47.9	—46.1	—52.3	—	—
	10 . . .	1	31400	—	—	1	—39.4	—	—	—	—
Aswan 0000 U.T.	Surface . . .	29	983m.b.*	988m.b.*	980m.b.*	29	27.6	33.0	22.5	29	3.0
	1000 . . .	29	40	87	12	—	—	—	—	—	—
	850 . . .	29	1481	1505	1453	29	25.2	30.7	18.3	29	— 1.1
	700 . . .	28	3144	3179	3103	28	12.4	15.2	8.2	28	— 9.8
	600 . . .	28	4413	4456	4361	28	2.4	6.1	— 2.5	27	—17.6
	500 . . .	28	5864	5915	5792	28	— 5.2	— 1.7	—10.0	28	—26.9
	400 . . .	27	7593	7643	7484	27	—14.0	—10.7	—20.0	27	—34.6
	300 . . .	27	9717	9793	9572	27	—29.0	—24.0	—33.0	27	—46.3
	250 . . .	26	10998	11082	10824	26	—38.9	—31.6	—44.0	26	—54.4
	200 . . .	26	12497	12633	12283	26	—50.3	—41.8	—56.4	25	—63.5
	150 . . .	23	14326	14518	14186	23	—63.3	—56.0	—65.6	—	—
	100 . . .	22	16732	16999	16580	22	—77.5	—69.8	—81.3	—	—
	70 . . .	13	18794	18942	18710	12	—72.3	—65.5	—77.0	—	—
	60 . . .	12	19715	19900	19550	11	—67.3	—62.9	—75.1	—	—
	50 . . .	12	20810	20982	20671	11	—64.4	—60.8	—77.0	—	—
	40 . . .	7	22330	22420	22200	7	—59.6	—56.8	—62.6	—	—
	30 . . .	7	24010	24127	23887	7	—56.5	—53.0	—59.2	—	—
	20 . . .	5	26540	26712	26141	5	—50.2	—48.4	—53.0	—	—
	10 . . .	1	31242	—	—	1	—43.6		—	—	—

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

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

UPPER AIR CLIMATOLOGICAL DATA

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

JUNE — 1971

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 UT	Surface . . .	28	1012*m.b.	1015*m.b.	1007*m.b.	28	26.2	36.5	23.0	28	16.3
	1000 . . .	28	133	160	90	28	25.2	36.2	21.6	28	15.4
	850 . . .	28	1547	1590	1512	28	19.8	26.2	11.2	28	3.0
	700 . . .	28	3198	3293	3119	28	11.2	23.8	3.8	28	7.5
	600 . . .	28	4457	4529	4371	28	2.4	8.2	— 4.6	27	—14.5
	500 . . .	27	5906	6019	5801	27	— 7.1	0.4	—16.5	27	—23.0
	400 . . .	26	7605	7762	7452	26	—19.4	—13.9	—25.9	26	—33.8
	300 . . .	26	9685	9883	9487	26	—32.8	—27.0	—38.5	26	—45.1
	250 . . .	25	10952	11165	10727	25	—39.5	—35.8	—42.9	22	—51.9
	200 . . .	23	12444	12678	12218	23	—48.8	—44.5	—52.5	21	—58.7
	150 . . .	21	14298	14518	14072	21	—61.0	—57.0	—64.3	4	—71.9
	100 . . .	18	16757	16973	16554	18	—72.2	—65.1	—77.2	—	—
	70 . . .	16	18853	19020	18684	16	—68.4	—60.0	—72.9	—	—
	60 . . .	11	19762	20000	19660	11	—62.9	—52.8	—67.2	—	—
	50 . . .	11	20911	21054	20766	11	—57.9	—55.4	—60.1	—	—
	40 . . .	9	22462	22670	22300	9	—54.4	—52.6	—56.0	—	—
	30 . . .	9	24215	24332	24026	9	—49.7	—46.3	—54.0	—	—
	20 . . .	3	26940	27000	26833	3	—47.7	—42.1	—53.5	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface . . .	29	994*m.b.	998*m.b.	988*m.b.	29	32.1	38.1	27.0	29	11.4
	1000 . . .	29	83	122	32	—	—	—	—	—	—
	850 . . .	29	1511	1538	1462	29	19.0	25.4	10.6	29	0.5
	700 . . .	29	3160	3211	3105	29	11.7	17.0	6.0	28	—17.7
	600 . . .	28	4430	4500	4351	28	4.0	8.6	— 1.7	27	—18.3
	500 . . .	27	5890	5981	5781	27	— 5.9	— 1.8	—11.2	27	—26.4
	400 . . .	26	7597	7700	7458	26	—17.6	—14.1	—24.0	26	—36.0
	300 . . .	24	9638	9847	9504	24	—27.9	—24.4	—34.4	24	—45.4
	250 . . .	23	10981	11151	10776	23	—36.7	—32.6	—40.2	23	—52.1
	200 . . .	22	12499	12673	12373	22	—47.6	—44.3	—51.5	21	—61.9
	150 . . .	19	14377	14542	14112	19	—60.0	—52.7	—66.3	11	—70.6
	100 . . .	19	16791	17004	16525	19	—72.5	—61.9	—75.6	—	—
	70 . . .	19	18869	19087	18506	19	—69.8	—64.9	—71.5	—	—
	60 . . .	17	19835	19990	19560	17	—63.6	—58.0	—68.3	—	—
	50 . . .	17	20939	21088	20618	17	—58.2	—55.1	—66.9	—	—
	40 . . .	15	22498	22730	22300	15	—54.6	—51.8	—59.9	—	—
	30 . . .	15	24251	24414	24078	15	—49.5	—47.2	—51.7	—	—
	20 . . .	9	26906	27124	26747	9	—45.2	—42.3	—48.3	—	—
	10 . . .	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface . . .	30	983*m.b.	988*m.b.	978*m.b.	30	39.8	44.8	32.8	30	3.7
	1000 . . .	28	32	83	4	—	—	—	—	—	—
	850 . . .	29	1494	1528	1458	29	26.1	31.8	18.4	29	— 6.3
	700 . . .	26	3164	3192	3125	26	12.9	15.2	8.7	26	—15.8
	600 . . .	25	4456	4477	4393	25	3.2	7.0	— 0.3	23	—23.0
	500 . . .	24	5890	5938	5835	24	— 5.4	— 1.4	— 8.7	23	—31.3
	400 . . .	22	7614	7664	7546	22	—14.0	—10.5	—20.0	21	—38.7
	300 . . .	21	9740	9804	9646	21	—28.7	—26.1	—33.0	21	—47.4
	250 . . .	20	11025	11090	10905	20	—38.0	—35.7	—42.5	19	—56.3
	200 . . .	18	12523	12587	12377	18	—49.4	—47.0	—54.0	15	—65.4
	150 . . .	15	14356	14440	14170	15	—62.7	—60.6	—64.1	—	—
	100 . . .	14	16776	16890	16548	14	—76.5	—71.7	—80.1	—	—
	70 . . .	8	18814	18904	18775	8	—72.4	—67.8	—78.5	—	—
	60 . . .	4	19852	19980	19790	4	—64.8	—63.6	—66.0	—	—
	50 . . .	4	20914	20952	20892	4	—59.1	—58.0	—60.5	—	—
	40 . . .	1	22480	—	—	1	—55.8	—	—	—	—
	30 . . .	1	24214	—	—	1	—47.8	—	—	—	—
	20 . . .	—	—	—	—	—	—	—	—	—	—
	10 . . .	—	—	—	—	—	—	—	—		

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

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

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

JUNE — 1971

Station	Freezing Level									First Tropopause									Highest wind speed			
	Mean			Highest			Lowest			Mean			Highest			Lowest						
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (° C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)	Speed in Knots
0000 U.T.																						
	(N)	(N)	(N)							(N)	(N)	(N)										
Mersa Matruh (A)	4722 (28)	581 (28)	-21.1 (28)	5600	527	-25.1	3410	676	-11.9	16497 (15)	104 (15)	-74.7 (15)	17600	87	-76.6	15130	130	-70.0	13839	155	270	158
Helwan.	4801 (28)	538 (28)	-17.4 (28)	5520	525	-31.7	3610	661	- 8.6	16771 (24)	100 (24)	-73.7 (24)	18490	75	-79.6	14960	132	-67.6	10860	251	280	106
Aswan . . . (A)	4799 (29)	569 (29)	-19.7 (28)	5590	520	-26.9	3690	654	-12.8	17018 (13)	96 (13)	-78.4 (13)	18380	76	-78.6	16150	110	-77.0	5570	521	350	45
1200 U.T																						
	(N)	(N)	(N)							(N)	(N)	(N)										
Mersa Matruh (A)	4836 (28)	575 (28)	-16.1 (82)	6050	497	-10.5	3850	641	-11.3	16214 (18)	116 (18)	-73.0 (18)	18030	82	-77.1	9400	308	-37.8	22655	—	235	145
Helwan	4984 (27)	562 (27)	-21.0 (27)	5590	525	-22.1	4130	622	-14.2	16615 (17)	110 (17)	-71.8 (17)	18470	76	-76.7	8420	351	-27.4	14120	153	295	125
Aswan . . . (A)	4951 (25)	563 (25)	-25.8 (23)	5730	514	-21.4	4350	604	-25.0	16532 (4)	104 (4)	-76.8 (4)	16844	100	-77.3	16060	113	-74.8	16000	114	115	69

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) JUNE — 1971

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		165/164		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	0	—	0	—	0	—	0	—	0	—	2	16	1	1	1	5	6	7	8	10	8	12	2	12	0	28	10
	1000	1	28	1	22	0	—	0	—	0	—	1	3	1	26	0	—	0	—	1	10	8	16	5	14	1	19	15
	850	4	17	3	38	1	34	0	—	2	17	0	—	0	—	0	—	0	—	0	—	2	22	6	24	1	19	23
	700	4	27	2	45	1	19	0	—	0	—	0	—	0	—	0	—	1	29	1	19	2	36	5	18	0	16	27
	600	1	20	2	22	1	22	0	—	0	—	0	—	0	—	0	—	0	—	3	18	4	36	5	33	0	16	28
	500	3	23	2	17	0	—	0	—	0	—	0	—	0	—	0	—	1	29	5	32	2	23	3	35	0	16	28
	400	3	34	1	17	1	28	0	—	0	—	0	—	0	—	0	—	0	—	5	54	4	37	1	32	0	15	33
	300	1	10	1	12	0	—	0	—	0	—	0	—	0	—	0	—	4	52	5	43	2	45	2	28	0	15	39
	250	0	—	1	11	0	—	0	—	0	—	0	—	0	—	0	—	3	48	9	53	1	10	0	—	0	14	46
	200	0	—	0	—	1	19	0	—	0	—	0	—	0	—	0	—	5	56	6	45	0	—	0	—	0	12	47
	150	0	—	1	16	0	—	0	—	0	—	0	—	0	—	1	58	5	38	2	39	0	—	0	—	0	9	38
	100	0	—	1	28	0	—	0	—	0	—	0	—	1	26	1	45	4	20	2	29	0	—	0	—	0	9	31
	70	0	—	0	—	0	—	2	25	0	—	3	19	0	—	1	12	0	—	0	—	0	—	0	—	0	6	20
	60	0	—	0	—	1	16	2	20	1	10	1	30	0	—	0	—	0	—	0	—	0	—	0	—	0	5	19
	50	0	—	0	—	1	24	4	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	18
	40	0	—	0	—	2	27	1	26	2	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	26
	30	0	—	0	—	1	31	3	30	1	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	29
	20	0	—	0	—	0	—	1	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	40
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	1	13	2	9	0	—	0	—	0	—	0	—	1	21	0	—	0	—	0	—	10	19	14	13	0	28	15
	1000	3	13	3	12	0	—	0	—	0	—	0	—	1	23	0	—	0	—	0	—	12	19	9	19	0	28	18
	850	6	19	4	30	1	12	0	—	0	—	1	37	0	—	0	—	0	—	4	25	7	24	5	19	0	28	23
	700	4	28	6	28	0	—	0	—	0	—	0	—	0	—	0	—	1	12	6	28	7	28	4	18	0	28	27
	600	3	22	4	27	0	—	0	—	0	—	0	—	0	—	0	—	2	12	8	34	6	25	4	22	0	27	26
	500	1	23	3	21	0	—	0	—	0	—	0	—	0	—	0	—	5	35	6	36	8	28	3	23	0	26	30
	400	0	—	3	24	0	—	0	—	0	—	0	—	0	—	0	—	3	33	11	39	6	42	2	15	0	25	35
	300	1	9	2	22	0	—	0	—	0	—	0	—	0	—	0	—	7	47	8	53	5	38	1	59	0	24	44
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	11	49	7	56	3	28	1	7	0	22	46
	200	0	—	1	12	0	—	0	—	0	—	0	—	0	—	2	64	6	43	8	62	1	6	1	6	0	19	47
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	32	6	39	6	28	0	—	0	—	0	16	33
	100	0	—	0	—	0	—	0	—	0	—	0	—	3	15	7	23	2	19	2	16	0	—	0	—	0	14	20
	70	0	—	0	—	0	—	2	18	4	14	3	16	0	—	1	11	0	—	0	—	1	9	0	—	0	11	14
	60	0	—	0	—	0	—	2	16	4	16	1	7	0	—	0	—	0	—	0	—	0	—	0	—	0	7	16
	50	0	—	0	—	0	—	4	20	2	25	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	7	20
	40	0	—	0	—	0	—	3	25	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	24
	30	0	—	0	—	1	35	2	30	1	27	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	30
	20	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	20
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

HELWAN — JUNE 1971

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

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

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

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

ASWAN (A) — JUNE 1971

Time	Pressure Surface (Millibar.)	Wind between specified ranges of direction (000—360)°																								Number of Calm winds	Total Number of Observations (T N)	Mean Scalar wind Speed (Knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 134		135 / 164		165 / 194		195 / 224		225 / 254		255 / 284		285 / 314		315 / 344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	13	10	2	6	1	4	1	6	0	—	0	—	0	—	0	—	1	3	0	—	2	8	9	11	0	29	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	2	18	11	17	5	15	0	—	0	—	1	14	0	—	0	—	0	-	2	10	2	12	4	14	0	27	15
	700	3	13	4	20	1	8	2	16	0	—	1	14	4	13	2	18	1	10	3	22	1	20	2	22	0	24	17
	600	0	—	2	16	0	—	0	—	0	—	0	—	1	16	1	14	0	—	2	14	4	19	1	10	0	11	16
	500	0	—	1	14	1	14	0	—	0	—	0	—	0	—	0	—	0	—	1	40	1	8	0	—	0	4	19
	400	0	—	1	18	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	18
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Sufrace	10	10	7	7	2	6	0	—	1	7	0	—	0	—	0	—	1	10	1	7	1	8	6	15	1	30	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	11	11	2	8	2	6	1	5	0	—	0	—	0	—	0	—	2	10	1	11	4	7	6	10	0	29	9
	700	2	14	2	12	0	—	3	7	0	—	1	24	2	8	0	—	2	12	6	14	5	17	2	18	0	25	14
	600	3	8	2	12	1	9	1	6	1	6	0	—	2	22	0	—	5	17	4	14	2	29	4	26	0	25	17
	500	2	25	2	10	2	10	3	11	1	19	1	4	0	—	1	9	1	8	4	20	1	40	5	27	0	23	18
	400	2	7	1	7	3	9	1	5	1	6	2	10	0	—	1	10	0	—	2	16	6	20	2	28	0	21	15
	300	0	—	0	—	1	5	1	17	1	7	0	—	2	6	0	—	5	17	5	21	2	14	0	—	0	17	15
	250	0	—	0	—	1	12	0	—	3	9	1	37	1	10	5	12	2	24	2	28	0	—	0	—	0	15	16
	200	0	—	1	13	0	—	0	—	1	35	2	15	3	20	1	8	2	30	2	29	0	—	0	—	0	12	22
	150	0	—	0	—	0	—	0	—	2	22	3	23	2	32	2	32	3	18	0	—	0	—	0	—	0	12	25
	100	0	—	0	—	0	—	0	—	1	51	1	38	1	27	0	—	1	26	0	—	0	—	0	—	0	4	36
	70	0	—	0	—	0	—	0	—	1	45	0	—	1	55	0	—	0	—	0	—	0	—	0	—	0	2	50
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — JUNE 1971

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

The month was characterized by five variant heat waves generally of short duration on the 5th, 8th, 12th, in the periods (16th — 19th) and (26th & 27th). The first heat wave yielded the highest maximum air temperature for the month (39.6°C), the lowest relative humidity (16%) and the highest daily evaporation from Piche tube (23.5 mm.) and pan class "A" (21.87 mm.). Apart from these heat waves mild weather prevailed.

The extreme maximum soil temperatures were higher than the corresponding values of last June at depths between 2 and 20 cm. with departures between 0.6°C at 2 cm. and 1.9°C at 5 cm. At 50 cm. depth the extrme maximum soil temperature was slightly lower (0.4°C) than last June, and at 100 cm. its value was the same. The extreme minimum soil temperatures were higher than the corresponding values of last June at all depths apart from the 10 cm. depth where its value was slightly lower (0.3°C) ; the departures varied between 1.9°C at 2 cm. and 0.5°C at both 5 and 100 cm.

The mean daily actual sunshine duration was 0.3 hour lower than the corresponding value of June 1970 ; the mean daily wind speed at 1.5 m. was higher by 0.6 m./sec.

TAHRIR — JUNE 1971

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

The month was characterized by a pronounced heat wave in the period (16th — 20th) yielding the highest maximum air temperature for the month (39.4°C) on the 20th and five light warm spells on the 5th, 8th, 13th, 27th and 30th. In the rest of the month, mild weather prevailed.

The extreme maximum soil temperatures were higher than the corresponding values of last June at all depths between 2 and 100 cm. apart from 10 and 20 cm. depths where the values were slightly lower (0.1° to 0.4°C) ; the departures varied between 1.2°C at both 5 & 50 cm. depths and 0.9°C at 100 cm. The extreme minimum soil temperatures were higher than the corresponding values of last June at all depths with departures between 1.9°C at 5 cm. and 0.8°C at 2, 20 and 50 cm. depths.

The daily mean actual sunshine duration and wind speed were slightly lower than the corresponding values of June 1970 (0.1 hour and 0.2 m./sec. respectively) ; the daily mean pan evaporation was slightly higher (0.11 mm.)

BAHTIM — JUNE 1971

Compared with last June, the mean daily air temperature was slightly lower (0.2°C) and the mean daily relative humidity was the same.

The month was characterized by a light heat wave on the 12th & 13th and a pronounced heat wave in the period (16th – 20th) yielding the highest maximum air temperature for the month (38.8°C) on the 19th. Apart from these two heat waves weather was mild.

The extreme maximum soil temperatures were higher than the corresponding values of last June at shallow depths between 2 & 10 cm. with departures between 1.8°C at 2 cm. and 0.6°C at 10 cm. At deeper detphs between 20 and 100 cm. the extreme soil maxima were lower than last June with departures between 0.6°C at 20 cm. and 0.2°C at 100 cm. The extreme minimum soil temperatures were higher than the corresponding values of last June at all depths apart from the 20 and 100 cm. depths where its values were slightly lower (0.1° to 0.2°C), the departures varied between 1.2°C at 2 cm. and 0.1°C at 10 cm.

The mean daily values of actual sunshine duration, pan evaporation and wind speed at 1.5 m. were all slightly lower than the corresponding values of June 1970 (0.2 hour 0.16 mm. and 0.1 m./sec. respectively).

KHARGA — JUNE 1971

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

The month was characterized by three pronounced heat waves in the periods (6th-9th), (16th – 21st) and (28th – 30th). The second heat wave was the most excessive and yielded the highest maximum air temperature for the month (45.6°C) on the 20th.

The extreme maximum and minimum soil temperatures were higher than the corresponding values of last June at all depths between 2 and 100 cm. The departures for the extreme maxima ranged between 5.1°C at 5 cm. and 0.7°C at 100 cm. The departures for the extreme minima ranged between 1.4°C at 2 cm. and 0.4°C at 100 cm.

The mean daily values of actual sunshine duration and wind speed at 1.5 m. were lower than the corresponding values of June 1970 by 0.5 hour and 0.4 m./sec. respectively; the mean daily pan evaporation was higher by only 0.22 mm.

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

JUNE — 1971

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	18.3	23.0	20.5	23.9	24.0	24.0	24.0	24.0	23.9	19.4	6.2	0.6	0.2	0	0
Tahrir	34.1	17.7	25.4	21.2	26.9	24.0	24.0	24.0	24.0	23.9	19.4	11.6	5.6	0.8	0	0
Bahtim	34.3	16.7	25.0	20.4	26.8	24.0	24.0	24.0	24.0	23.7	18.3	11.3	6.1	1.0	0	0
Kharga	39.8	23.8	32.1	28.6	33.3	24.0	24.0	24.0	24.0	24.0	23.9	21.2	14.5	7.7	2.4	0

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

JUNE — 1971

STATION	Max. Temp. at 1½ metres				Min. Temp. at 1½ metres				Min. Temp. at 5 cms. above			
	Highest		Lowest		Highest		Lowest		Dry Soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
Mersa Matruh. .	39.6	5	24.5	3	21.6	29	14.6	2	13.4	2	—	—
Tahrir	39.4	20	29.1	1	21.0	29	13.2	2	12.2	2	—	—
Bahtim	38.8	19	29.4	1	20.8	28	12.4	2	10.1	2	—	—
Kharga	45.6	20	33.2	4	29.2	21	18.0	3	15.4	3	—	—

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

JUNE — 1971

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
Mersa Matruh. .	615.9	360.9	425.5	82	75	62	16	5	15.5	15.8	20.2	30	8.0	8	8.6	9.07	0.0	0.0	—
Tahrir	718.8	374.0	422.2	89	62	35	20	3	14.2	12.7	18.9	18	7.6	3	9.8	10.91	0.0	0.0	—
Bahtim	691.0	356.9	421.7	85	56	31	20	3,19	12.5	11.7	18.3	18	6.1	6	12.6	11.86	0.0	0.0	—
Kharga	605.5	356.5	409.8	87	22	14	5	18	7.1	6.8	11.8	24,27	3.0	18	26.5	22.61	0.0	0.0	—

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

JUNE — 1971

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	42.7	39.3	34.4	29.4	26.8	24.5	22.4	—	—	—	—	—	—	—	—	—
	L	22.5	21.0	21.1	23.6	24.3	22.9	21.2	—	—	—	—	—	—	—	—	—
Tahrir	H	54.6	48.6	41.0	35.8	32.6	30.1	27.3	26.0	—	—	—	—	—	—	—	—
	L	25.3	25.6	25.1	27.0	28.0	27.5	25.2	24.3	—	—	—	—	—	—	—	—
Bahtim. . . .	H	55.1	45.8	39.0	33.1	30.3	28.2	25.4	24.1	—	—	—	—	—	—	—	—
	L	27.5	26.2	25.9	28.3	27.8	26.0	23.9	23.3	—	—	—	—	—	—	—	—
Kharga	H	59.2	51.2	43.7	37.8	34.6	31.9	29.2	28.2	—	—	—	—	—	—	—	—
	L	19.1	23.8	27.9	31.0	32.0	30.5	27.9	27.2	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

JUNE — 1971

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 konts	≥25 knots	≥30 knots	≥35 knots	≥40 knots	value	Date
Mersa Matruh	5.0	3.8	6.2	30	28	18	7	1	0	0	37	3
Tahrir	2.4	1.7	3.2	29	21	2	1	0	0	0	40	3
Bahtim	2.6	1.5	3.8	28	16	3	1	0	0	0	35	3
Kharga	4.8	5.1	4.5	30	30	22	5	0	0	0	35	10

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THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 14 NUMBER 7

JULY, 1971

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

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

Orders for publications should be addressed to :

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

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

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

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

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

THE ANNUAL REPORT

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

CLIMATOLOGICAL NORMALS FOR EGYPT

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

METEOROLOGICAL RESEARCH BULLETIN

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

TECHNICAL NOTES

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

THE ARAB REPUBLIC OF EGYPT

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on the tables please refer to Volume 14, Number 1 (January 1971).

GENERAL SUMMARY OF WEATHER CONDITIONS

JULY 1971

Normal summer in general, intervened with three short heat waves.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather this month was generally mild and humid in the northern parts, rather hot in the central parts & very hot and remarkably dry in the southern parts. The month was intervened with three short heat waves round the periods (1st-2nd), (7th—8th) & (20th—21st).

Early morning low clouds developed frequently over Delta and Cairo areas with few occasions of mist or fog.

Light rising sand was reported in several days over few localities mainly in the Red Sea and Upper Egypt districts.

PRESSURE DISTRIBUTION

The most outstanding features of pressure distribution over the synoptic surface charts during this month were :

— The Atlantic anticyclone and its extensions over Europe.

— Deep depressions moving through North & Central Europe from west to east.

— A ridge of high pressure over Central Mediterranean & Libya.

— The complex monsoon low pressure over the Arabian gulf, Arabia & Sudan.

During this month the Iraq monsoon trough experienced five elongations through Asia Minor round the periods (3rd-4th), (7th-9th), (13th-17th), (20th-22nd) & 26th-29th). These elongations associated the approach and the transits of depressions or low pressure troughs through the Black Sea area and its vicinities.

As a result of these elongations of the Iraq monsoon trough, the barometric pressure over Egypt experienced corresponding pressure falls. Otherwise, high pressure over Central Mediterranean & Libya extended eastwards slightly causing rises in the barometric pressure over Egypt.

Over the upper air charts, the most significant upper pressure patterns are summarized in :

— Deep low pressure systems over North Atlantic and North Urasia.

— Secondary upper lows or troughs through middle latitudes passing through East Med. and Egypt on the 4th, 11th, 17th, 24th & 28th.

— Upper high pressure belt over the subtropical latitudes.

SURFACE WIND

Light to moderate Nly and NWly winds prevailed most of this month. Winds freshened in several days over few scattered localities. Calm winds were frequent most of night and early morning in scattered places mainly inland.

TEMPERATURE

Maximum air temperatures showed slight rises above normal during the heat waves which prevailed round the periods (1st-2nd), (7th-8th) & (20th-21st). Otherwise, maximum air temperatures were below normal with slight departures in the Mediterranean district and moderate departures in land districts. Maximum air temperature values ranged most of the month between 28°C & 30°C in the northern parts, between 32°C & 36°C in the middle parts, between 39°C & 42°C in the southern parts.

The absolute maximum air temperature for Egypt in this month was 44.8°C reported at Luxor on the 9th.

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

Minimum air temperature values ranged generally between 19°C & 23°C in the northern and middle parts and between 22°C & 26°C in the southern parts.

The absolute minimum air temperature for Egypt this month was 15.2°C reported at Beni Suef on the 11th.

PRECIPITATION

The month was rainless all over the Country.

Cairo. July 1972

Chairman (M. F. TAHA)

Board of Directors

SURFACE DATA

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

JULY — 1971

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	1010.6	+ 0.3	30.0	— 0.9	21.0	— 0.3	25.5	25.2	— 0.9	20.1	— 0.3	61	— 3	—	—	—	9.0
Mersa Matruh (A)	1010.4	+ 0.6	28.7	— 0.5	20.3	0.0	24.5	24.5	— 0.5	20.9	— 0.6	71	— 2	385.8	434.0	89	8.5
Alexandria (A)	1009.6	+ 1.1	29.6	— 0.1	22.0	— 0.6	25.8	25.4	— 0.6	21.3	— 1.2	68	— 5	374.4	432.3	87	6.3
Port Said (A)	1007.9	+ 0.4	30.1	— 0.3	22.0	— 2.1	26.0	25.4	— 1.3	21.4	— 1.7	62	—10	377.0	432.3	87	5.8
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1008.7	+ 0.6	30.6	— 3.8	18.7	— 0.6	24.6	24.5	— 2.0	20.2	— 1.2	68	+ 6	377.1	431.0	88	4.5
Cairo (A)	1008.7	+ 0.7	33.0	— 2.2	21.2	— 0.3	27.1	26.6	— 1.3	20.6	— 0.7	56	+ 3	—	—	—	13.8
Fayoum	—	—	35.5	— 1.2	20.1	— 1.4	27.8	27.5	— 1.4	20.4	— 0.4	49	+ 4	—	—	—	9.8
Minya (A)	1007.6	+ 0.7	36.6	— 0.1	19.7	— 0.6	28.3	27.7	— 0.8	20.0	— 0.3	46	+ 1	390.5	425.3	92	14.5
Assyout (A)	1005.8	— 1.0	35.2	— 1.6	21.5	— 0.8	28.4	28.5	— 1.3	19.2	— 0.2	38	+ 4	—	—	—	20.2
Luxor (A)	1005.3	+ 0.5	40.0	— 0.5	23.1	— 0.5	31.6	31.5	— 1.3	20.1	+ 0.2	30	+ 5	—	—	—	13,5
Aswan (A)	1005.5	+ 0.8	40.4	— 0.7	24.7	0.0	32.6	32.6	— 1.0	18.0	— 0.1	17	+ 2	—	—	—	29.1
Siwa	1010.2	+ 0.5	35.9	— 2.0	20.6	— 0.1	28.2	28.5	— 1.2	18.9	— 0.5	36	+ 2	388.7	427.7	91	14.7
Bahariya	1008.5	+ 0.5	36.7	— 0.2	21.2	+ 0.7	28.9	28.5	— 0.9	18.2	— 1.2	32	— 4	—	—	—	16.2
Farafra	1009.8	+ 0.4	35.3	— 1.9	20.3	— 1.0	27.8	28.5	— 1.3	19.0	+ 1.4	37	+13	—	—	—	18.2
Dakhla	1008.9	+ 2.1	37.1	— 1.4	21.1	— 1.8	29.1	29.6	— 1.4	17.9	0.0	26	+ 5	—	—	—	23.7
Kharga	1007.0	+ 0.6	38.3	— 1.1	23.4	+ 0.2	30.8	31.4	— 0.2	17.7	— 1.0	24	— 2	390.4	418.8	93	20.3
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1005.3	+ 0.9	32.2	— 0.7	25.2	+ 0.3	28.7	29.3	— 0.3	21.3	— 0.4	46	— 1	387.6	422.7	92	15.5
Quseir	1004.8	— 0.1	31.3	— 1.9	25.6	— 0.7	28.4	28.8	— 1.1	21.8	— 0.4	52	+ 4	—	—	—	16.3

Table A 2.—MAXIMUM & MINIMUM AIR TEMPERATURE

JULY — 1971

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	36.1	21	25.8	2	31	13	2	0	0	20.4	—	23.0	8	18.0	5	0	0	0	0
Mersa Matruh (A)	33.4	20	27.5	2	31	3	0	0	0	19.0	—	23.2	21	18.3	5	0	0	0	0
Alexandria (A)	33.6	20	28.0	3,13	31	5	0	0	0	20.3	—	23.5	21	17.5	1	0	0	0	0
Port Said (A)	33.3	20	28.3	4,10	31	15	0	0	0	21.6	—	23.3	20,21	20.2	26	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	35,0	20	28.0	10	31	15	0	0	0	—	—	20.7	18	17.2	26,28	0	0	0	0
Cairo (A)	38.1	2	30.3	24	31	31	6	0	0	—	—	25.2	2	19.5	4	0	0	0	0
Fayoum	40.7	8	32.6	10	31	31	16	1	0	—	—	22.7	3	18.0	5,6	0	0	0	0
Minya (A)	39.0	1	32.4	24	31	31	15	0	0	21.9	—	21.5	7	17.4	26	0	0	0	0
Assyout (A)	39.3	1	32.5	14	31	31	13	0	0	19.2	—	25.0	2	18.5	26	0	0	0	0
Luxor (A)	44.8	9	37.0	14	31	31	31	11	0	18.8	—	25.6	4	20.8	14	0	0	0	0
Aswan (A)	43.0	9	37.8	24	31	31	31	14	0	—	—	28.1	10	22.8	16	0	0	0	0
Siwa	39.9	8	33.4	23,27	31	31	19	0	0	19.4	—	23.5	2	18.7	20	0	0	0	0
Bahariya	40.3	2	32.2	24	31	31	15	1	0	19.6	—	23.9	2	18.9	4	0	0	0	0
Farafra	40.6	1	32.3	24	31	31	17	2	0	19.6	—	24.9	3	17.7	6	0	0	0	0
Dakhla	40.8	8	33.7	24	31	31	24	6	0	20,9	—	25.8	9	15.4	26	0	0	0	0
Kharga	42.5	22	35.2	14	31	31	31	7	0	21.3	—	27.8	9	19.4	15	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	36.2	21	30.8	30	31	31	5	0	0	—	—	27.7	9	22.9	25	0	0	0	0
Quseir	34.3	21	29.9	14	31	28	0	0	0	22.2	—	29.8	22	23.3	25	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

JULY — 1971

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	1.6	1.3	2.1	0.8	1.4	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	1.3	2.2	1.4	1.7	1.5	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	3.6	3.2	2.9	2.1	2.9	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Port Said (A)	1.2	2.1	0.4	0.6	1.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.4	1.3	2.2	0.2	1.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Cairo (A)	0.6	2.5	0.9	0.4	1.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Fayoum	—	1.8	0.2	0.1	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.1	0.3	0.1	0.1	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.0	0.4	0.3	0.0	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.2	0.5	0.6	0.5	0.5	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	0.1	0.2	0.7	0.2	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Bahariya	0.0	0.4	0.3	0.2	0.2	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.0	0.2	0.2	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.1	0.2	0.2	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.0	0.3	0.5	0.5	0.4	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.0	0.4	0.7	0.3	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0

Table A 4 — DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA

JULY — 1971

Station	Precipitation				Frost	Thunderstorm	Mist Vis > 1000 metres	Fog Vis <1000 Metres	Haze Vis ≥1000 Metres	Thick Haze Vis <1000 Metres	Dust or Sandrising Vis ≥1000 Metres	Dust or Sandstorm Vis <1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice Pellets	Hail											
Sallum.	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Mersa Matruh. .(A)	0	0	0	0	0	0	4	0	0	0	4	0	0	19	0
Alexandria. . . .(A)	0	0	0	0	0	0	1	1	0	0	0	0	0	11	0
Port Said. . . .(A)	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	0	0	0	0	0	0	6	0	0	0	0	0	0	25	0
Cairo. . . . . .(A)	0	0	0	0	0	0	11	1	0	0	1	0	0	26	0
Fayoum.	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya. . . . . .(A)	0	0	0	0	0	0	2	0	2	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	0	0	4	0	0	31	0
Aswan. . . . . .(A)	0	0	0	0	0	0	0	0	4	0	17	1	0	29	0
Siwa.	0	0	0	0	0	0	0	0	0	0	3	0	0	29	0
Bahariya.	0	0	0	0	0	0	0	0	0	0	0	0	0	30	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	1	0	0	31	0
Kharga.	0	0	0	0	0	0	0	0	0	0	1	0	0	31	0
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada.	0	0	0	0	0	0	0	0	0	0	7	0	0	28	1
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 — 1971

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated												All directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sallum	5	1	0	1—10	61	49	18	13	5	0	1	5	1	5	69	120	347
				11—27	39	40	2	0	0	0	0	0	0	0	125	185	391
				28—47	0	0	0	0	0	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	89	20	13	5	0	1	5	1	5	194	305	738
Mersa Matruh. (A)	0	0	0	1—10	37	10	0	3	4	1	1	4	15	132	62	7	345
				11—27	27	3	2	6	0	0	0	1	2	9	59	290	399
				28—47	0	0	0	0	0	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	13	2	9	4	1	1	5	17	141	121	366	744
Alexandria . . (A)	1	0	6	1—10	42	14	4	1	2	13	16	5	4	27	144	251	523
				11—27	3	0	0	0	0	0	0	0	0	11	87	113	214
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All Speeds	45	14	4	1	2	13	16	5	4	38	231	364	737
Port Said . . . (A)	26	0	0	1—10	99	44	12	3	0	2	0	4	30	127	153	177	651
				11—27	2	0	0	0	0	0	0	0	0	0	17	48	67
				28—47	0	0	0	0	0	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	44	12	3	0	2	0	4	30	127	170	225	718
Tanta	23	0	0	1—10	58	33	13	5	11	2	12	13	72	110	128	120	577
				11—27	16	4	0	0	0	0	0	0	0	0	32	92	144
				28—47	0	0	0	0	0	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	37	13	5	11	2	12	13	72	110	160	212	721
Cairo . . . . . (A)	85	0	34	1—10	82	59	26	17	3	0	0	1	7	26	102	131	454
				11—27	56	25	3	5	1	0	0	0	0	0	18	63	171
				28—47	0	0	0	0	0	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	84	29	22	4	0	0	1	7	26	120	194	625
Fayoum	3	0	1	1—10	372	223	10	2	0	0	2	0	1	5	22	84	721
				11—27	3	15	0	0	0	0	0	0	0	0	0	1	19
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	375	238	10	2	0	0	2	0	1	5	22	85	740
Minya	2	0	0	1—10	317	64	1	1	1	0	3	0	0	3	6	36	432
				11—27	285	21	2	0	0	0	0	0	0	0	0	2	310
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	602	85	3	1	1	0	3	0	0	3	6	38	742
Assyout	7	0	4	1—10	39	1	0	2	0	1	4	1	3	68	181	166	466
				11—27	35	1	0	0	0	0	0	0	0	5	57	169	267
				38—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				> 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	74	2	0	2	0	1	4	1	3	73	238	335	733

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

JULY — 1971

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Mumber in hours of occurrences of wind blowing from the ranges of directions indication												
					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)	50	0	0	1—10	3	8	2	8	15	38	109	71	94	132	154	30	664
				11—27	0	0	0	0	0	0	2	1	0	7	20	0	30
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	3	8	2	8	15	38	111	72	94	139	174	30	694
Aswan . . . . . (A)	4	8	0	1—10	117	27	1	0	1	5	12	11	17	85	83	118	477
				11—27	63	1	0	0	0	0	0	1	0	22	57	111	255
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	180	28	1	0	1	5	12	12	17	107	140	229	732
Siwa	6	16	0	1—10	109	104	79	23	7	3	5	2	3	23	95	145	598
				11—27	29	39	2	0	0	0	0	0	0	0	15	39	124
				28—47	0	0	0	0	0	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	143	81	23	7	3	5	2	3	23	110	184	722
Dakhla	5	0	0	1—10	57	5	2	7	3	1	9	23	52	77	178	296	710
				11—27	2	0	0	0	0	0	0	0	0	0	1	26	29
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	59	5	2	7	3	1	9	23	52	77	179	322	739
Kharga	7	5	10	1—10	134	34	7	6	4	3	1	3	3	11	53	128	387
				11—27	187	16	0	0	0	0	0	0	0	0	12	120	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	321	50	7	6	4	3	1	3	3	11	65	248	722
Hurghada	25	0	0	1—10	30	39	10	4	2	18	2	2	0	1	42	59	209
				11—27	194	45	0	0	0	0	0	0	0	0	21	241	501
				28—47	0	0	0	0	0	0	0	0	0	0	0	9	9
				≥ 48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	224	84	10	4	2	18	2	2	0	1	63	309	719
Quseir	23	1	2	1—10	168	131	47	16	4	4	13	12	9	9	20	66	499
				11—27	53	140	24	1	0	0	0	0	0	0	0	0	218
				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	221	272	71	17	4	4	13	12	9	9	20	66	718

UPPER AIR CLIMATOLOGICAL DATA

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

JULY — 1971

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	*1010m.b.	*1013m,b.	*1007m.b.	31	22.7	29.5	19.8	31	19.1
	1000	31	114	140	89	31	22.1	24.0	20.1	31	18.1
	850	31	1515	1560	1499	31	17.4	24.7	12.1	31	1.2
	700	31	3152	3234	3115	31	10.2	14.5	1.4	31	—10.0
	600	30	4420	4514	4370	30	3.3	6.1	0.3	30	—17.4
	500	30	5876	5971	5816	30	— 5.4	0.0	— 8.0	30	—24.5
	400	30	7595	7703	7524	30	—15.4	—12.2	—19.7	30	—33.2
	300	30	9709	9821	9630	30	—29.6	—22.8	—32.5	29	—44.6
	250	29	10980	11091	10896	29	—39.3	—35.0	—42.0	28	—54.0
	200	28	12470	12576	12386	28	—50.2	—48.0	—52.6	28	—61.0
	150	28	14295	14394	14202	28	—63.1	—60.0	—65.5	1	—70.0
	100	26	16722	16819	16610	26	—73.3	—68.9	—77.8	—	—
	70	26	18830	18917	18752	26	—68.3	—64.1	—72.2	—	—
	60	24	19798	19900	19700	24	—64.4	—60.7	—69.0	—	—
	50	24	20885	20977	20813	24	—60.6	—57.7	—68.9	—	—
	40	17	22386	22500	22300	17	—56.6	—54.7	—60.2	—	—
	30	15	24134	24227	24043	15	—53.6	—51.0	—56.1	—	—
	20	10	26798	26877	26685	10	—49.0	—43.1	—58.7	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 UT	Surface	30	*992m.b.	*996m,b.	*990m.b.	30	22.7	26.9	20.4	30	17.1
	1000	30	74	108	52	—	—	—	—	—	—
	850	29	1482	1506	1462	29	19.3	24.2	14.1	29	5.6
	700	28	3132	3164	3082	28	11.5	15.5	7.1	28	— 4.4
	600	28	4406	4443	4350	28	4.4	8.8	0.7	28	—12.0
	500	28	5873	5925	5809	28	— 3.2	1.4	— 7.4	28	—18.8
	400	28	7607	7681	7521	28	—13.8	—11.5	—17.0	28	—27.8
	300	27	9733	9821	9638	27	—29.0	—26.9	—30.5	27	—41.0
	250	26	11011	11104	10915	26	—38.1	—33.7	—40.0	26	—49.1
	200	26	12513	12604	12420	26	—49.5	—47.0	—53.8	24	—59.3
	150	23	14377	14444	14254	23	—62.5	—60.9	—65.4	—	—
	100	22	16768	16884	16664	22	—75.4	—72.7	—80.5	—	—
	70	20	18853	18931	18720	20	—69.5	—64.7	—74.7	—	—
	60	18	19815	19900	19700	18	—64.8	—62.4	—69.4	—	—
	50	18	20906	20990	20792	18	—60.7	—58.7	—64.0	—	—
	40	12	22401	22480	22280	12	—57.4	—55.4	—59.3	—	—
	30	11	24143	24223	24017	11	—53.7	—50.1	—56.7	—	—
	20	6	26808	26900	26642	6	—47.6	—46.1	—50.8	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 0000 UT	Surface	31	*982m.b.	*986m.b.	*979m.b.	31	27.6	31.5	25.6	31	4.4
	1000	31	35	60	03	—	—	—	—	—	—
	850	31	1475	1505	1445	31	23.8	27.7	20.9	31	— 0.7
	700	29	3135	3179	3090	29	12.6	16.3	6.6	29	— 1.0
	600	29	4410	4463	4351	29	4.4	8.6	1.8	29	—17.5
	500	29	5873	5923	5816	29	— 3.7	1.2	— 7.8	29	—26.4
	400	29	7605	7685	7543	29	—13.5	—10.0	—16.8	28	—34.8
	300	27	9735	9835	9679	27	—28.8	—26.8	—30.7	27	—46.8
	250	27	11013	11124	10942	27	—39.1	—37.3	—42.1	26	—55.0
	200	26	12501	12561	12412	24	—50.8	—49.5	—53.8	19	—64.6
	150	21	14322	14386	14203	20	—63.9	—61.3	—67.1	—	—
	100	19	16715	16789	16564	19	—76.7	—73.9	—79.4	—	—
	70	11	18809	18845	18760	11	—70.5	—56.7	—79.8	—	—
	60	9	19768	19807	19720	9	—66.2	—60.2	—75.7	—	—
	50	9	20831	20890	20782	9	—63.9	—59.4	—73.0	—	—
	40	8	22339	22440	22207	8	—59.0	—55.3	—69.8	—	—
	30	8	24116	24341	23861	8	—56.5	—51.2	—65.8	—	—
	20	7	26566	26751	26354	7	—52.0	—40.0	—60.6	—	—
	10	1	31297	—	—	1	—46.2	—	—	—	—

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

JULY — 1971

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 Matrah (A) 1200 UT	Surface	31	* 1010m.b.	* 1013m.b.	* 1007m.b.	31	27.3	30.8	25.0	31	19.5
	1000	31	118	1 1	90	31	25.9	30 0	21.7	31	17.9
	850	31	1527	1579	1496	31	18 0	26 0	13.1	31	0.3
	700	30	3167	32 8	3128	30	11.3	15 7	7 2	30	—11.5
	600	29	4438	4506	4391	29	4.2	7.3	— 0.1	29	—17.9
	500	28	5898	5967	5846	28	— 4.5	— 0.6	— 8.1	28	—25.6
	400	28	7624	7704	7545	28	—14.4	10 2	—20.1	28	—31.4
	300	28	9746	9830	9642	28	—28.4	—25.7	—31.9	27	—44.7
	250	28	11029	11115	10923	27	—37.8	—34.0	—40.0	27	—52.9
	200	28	12527	12617	12420	27	—49.0	—45.9	—51.3	26	—62.0
	150	28	14367	14473	14286	27	—61.6	—59.4	—63.2	4	—72.0
	100	28	16811	16934	16700	28	—72.3	—67.5	—77.4	—	—
	70	27	18936	19060	18798	27	—66.4	—59.9	—75.0	—	—
	60	26	19902	20040	19710	26	—69.9	—57.5	—65.3	—	—
	50	26	21020	21161	20868	26	—57.3	—53.0	—60.9	—	—
	40	16	22494	22650	22270	16	—54.2	—52.2	—58.0	—	—
	30	14	24305	24439	24136	14	—50.6	—47.7	—52.9	—	—
	20	7	27025	27155	26802	7	—43.8	—38.5	—46.8	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	30	* 992 m.b.	* 995 m.b.	* 990m.b.	30	31.7	37.0	28.7	30	14.5
	1000	30	69	9	50	—	—	—	—	—	2.3
	850	30	1497	1535	1470	30	20.1	27.0	13.7	30	— 9.1
	700	30	3149	3209	3097	30	12.1	15.7	6.4	30	—16.3
	600	30	4425	4501	4354	30	5.3	8.8	2.4	30	—22.6
	500	30	5897	5942	5817	30	— 2.0	3.0	— 5.9	30	—31.8
	400	30	7638	7733	7539	30	—12.8	—10.1	—19.2	30	—43.8
	300	29	9774	9886	9664	29	—27.8	—25.5	—31.6	28	—51.5
	250	25	11058	11146	10946	25	—37.1	—33.4	—39.8	25	—60.5
	200	24	12567	12655	12448	24	—48.2	—43.7	—50.3	24	—69.8
	150	23	14406	14501	14220	23	—61.4	—57.9	—64.9	4	—
	100	23	16846	16953	16680	23	—73.3	—70.5	—78.0	—	—
	70	22	18954	19069	18770	22	—68.2	—63.9	—73.8	—	—
	60	18	19960	20070	19800	18	—61.8	—59.1	—65.5	—	—
	50	18	21045	21151	20887	18	—56.6	—52.8	—61.2	—	—
	40	16	22525	22640	21870	16	—53.6	—51.9	—57.0	—	—
	30	16	24369	24888	24131	16	—49.8	—46.1	—52.4	—	—
	20	10	27027	27196	26831	10	—44.0	—39.3	—49.3	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	30	* 982m.b.	* 985m.b.	* 979m.b.	30	38.6	42.0	34.2	30	4.4
	1000	28	31	54	05	—	—	—	—	—	—
	850	29	1486	1512	1447	29	24.8	28.8	21.1	29	— 4.0
	700	29	3147	3177	3100	29	12.3	17.2	6.2	29	—14.2
	600	27	4419	4456	4351	27	4.7	8.7	0.3	27	—21.9
	500	27	5883	5924	5818	27	— 3.6	1 7	— 7.8	27	—29.0
	400	27	7614	7665	7552	27	—13.3	—11.2	—16.4	27	—37.7
	300	27	9743	9801	9664	27	—28.4	—26.7	—30.8	27	—48.6
	250	27	11025	11091	10942	26	—38.7	—35.9	—47.8	26	—57.2
	200	27	12526	12601	12421	27	—49.8	—47.1	—51.3	26	—65.9
	150	27	14352	14441	14241	26	—63.2	—59.8	—69.1	1	—76.2
	100	24	16761	16874	16611	24	—76.1	—71.9	—82.1		—
	70	20	18848	18934	18774	19	—69.5	—63.7	—79.0	—	—
	60	13	19836	19990	19750	13	—63.4	—60.8	—66.8	—	—
	50	13	20920	20993	20820	13	—60.2	—54.8	—63.3	—	—
	40	11	22446	22530	22350	11	—55.2	—49.9	—59.0	—	—
	30	11	24189	24343	24079	10	—49.7	—41.7	—54.1	—	—
	20	5	26831	26935	26752	5	—44.2	—41.7	—46.1	—	—
	10	—	—	—	—	—	—	—	—		

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

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

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

JULY — 1971

	Station	Freezing Level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh (A)	5909 (30)	5[illegible]6 (30)	—20.1 (30)	5899	5[illegible]0	—29.0	4490	592	—22.9	16382 (15)	107 (25)	—73.1 (25)	18090	82	—78.5	15190	129	—69.3	11948	215	2[illegible]0	70
	Helwan	5259 (28)	5[illegible]3 (28)	—15.9 (28)	6120	4[illegible]9	—22.7	4490	593	—15.9	16639 (19)	103 (19)	—75.4 (19)	17590	86	—78.4	15490	123	—71.5	15170	113	235	54
	Aswan . . . (A)	5188 (29)	544 (29)	—21.7 (29)	6220	480	—26.9	4230	638	—25.0	16528 (11)	105 (11)	—77.0 (11)	17880	83	—79.3	15570	122	—74.7	810	915	360	45
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh (A)	5121 (28)	552 (28)	—21.7 (28)	5830	506	—15.0	4140	601	—21.4	16269 (27)	111 (27)	—72.0 (27)	17800	84	—75.8	15100	133	—67.5	13900	158	210	87
	Helwan	5480 (30)	529 (30)	—21.0 (30)	6340	475	—20.8	4528	572	—29.8	16740 (21)	103 (21)	—73.9 (21)	18480	78	—73.0	15150	132	—67.4	23380	35	65	58
	Aswan . . . (A)	5270 (27)	542 (27)	—25.5 (27)	6260	480	—33.3	4420	597	—26.0	16519 (18)	105 (8)	—76.4 (18)	17840	83	—79.3	15720	120	—73.2	14275	—	110	65

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

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

MERSA MATRUH (A) — JULY 1971

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		195/22		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	13	0	—	0	—	0	—	1	11	0	—	0	—	2	6	1	4	11	8	8	12	7	10	0	31	10
	1000	3	15	0	—	0	—	0	—	0	—	1	14	0	—	0	—	1	12	4	14	11	16	9	14	1	30	14
	850	5	13	5	17	0	—	0	—	0	—	0	—	0	—	2	24	1	18	1	18	3	17	13	17	0	30	17
	700	8	16	3	18	0	—	0	—	0	—	0	—	0	—	0	—	1	19	5	19	6	13	8	19	0	31	17
	600	10	17	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	20	4	21	6	18	2	8	0	27	18
	500	2	13	2	32	0	—	0	—	0	—	0	—	0	—	0	—	3	25	7	22	9	16	2	18	1	26	19
	400	0	—	2	28	0	—	0	—	0	—	0	—	0	—	1	20	11	29	5	24	4	12	3	20	0	26	24
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	28	14	33	4	28	2	20	0	—	0	25	30
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	23	12	34	1	37	1	35	2	20	0	23	30
	200	0	—	1	6	0	—	0	—	0	—	0	—	0	—	6	39	12	33	2	20	2	22	0	—	0	23	30
	150	0	—	0	—	0	—	0	—	0	—	1	16	2	20	8	38	2	46	3	24	2	32	0	—	0	18	21
	100	0	—	0	—	0	—	0	—	1	6	6	36	3	24	4	34	1	31	0	—	0	—	0	—	0	15	32
	70	0	—	0	—	1	18	4	18	2	18	1	9	0	—	1	10	0	—	0	—	0	—	0	—	0	9	16
	60	0	—	0	—	2	18	3	16	1	15	0	—	0	—	0	—	1	23	0	—	0	—	0	—	0	7	18
	50	0	—	0	—	0	—	4	32	2	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	6	34
	40	0	—	0	—	0	—	3	32	0	—	0	—	0	—	0	—	0	—	0	—	1	26	0	—	0	4	30
	30	0	—	0	—	0	—	2	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	38
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	2	14	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	18	20	16	0	31	16
	1000	5	14	1	12	0	—	0	—	1	21	0	—	0	—	0	—	0	—	0	—	6	22	18	19	0	31	18
	850	3	16	1	20	1	17	0	—	0	—	0	—	0	—	1	18	1	9	4	12	8	19	11	14	1	31	15
	700	1	16	6	14	0	—	0	—	0	—	0	—	0	—	0	—	4	16	2	18	9	15	8	19	0	30	16
	600	3	20	3	13	0	—	0	—	0	—	0	—	0	—	0	—	2	15	8	12	11	20	1	14	0	28	16
	500	3	15	3	8	0	—	0	—	0	—	0	—	0	—	0	—	6	26	10	23	3	13	3	14	0	28	19
	400	1	14	1	21	0	—	0	—	0	—	0	—	0	—	5	33	8	31	9	22	0	—	3	14	0	27	26
	300	1	26	0	—	0	—	0	—	0	—	0	—	1	30	4	40	12	29	5	29	2	26	1	21	0	26	30
	250	0	—	0	—	0	—	0	—	0	—	1	3	1	46	7	38	8	34	5	26	0	—	2	12	0	24	31
	200	0	—	0	—	0	—	0	—	2	18	0	—	2	48	7	31	5	34	4	23	0	—	0	—	0	20	32
	150	0	—	0	—	0	—	0	—	0	—	2	25	4	25	6	39	6	32	1	31	1	19	0	—	0	20	31
	100	0	—	0	—	0	—	0	—	1	21	7	27	9	29	1	38	0	—	0	—	0	—	0	—	0	18	29
	70	0	—	0	—	0	—	0	—	5	35	6	26	2	30	0	—	0	—	0	—	0	—	0	—	0	13	30
	60	0	—	1	21	1	42	0	—	4	30	5	27	1	23	0	—	0	—	0	—	0	—	0	—	0	12	28
	50	0	—	0	—	0	—	2	31	2	31	3	29	1	45	0	—	0	—	0	—	0	—	0	—	0	8	32
	40	0	—	0	—	0	—	1	41	1	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	34
	30	0	—	0	—	0	—	1	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	40
	20	0	—	0	—	0	—	1	48	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	48
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

HELWAN — JULY 1971

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	5	6	13	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	10	6	2	30	7
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	12	4	11	0	—	1	6	0	—	0	—	0	—	0	—	1	6	8	15	3	17	8	11	0	28	13
	700	5	9	1	13	0	—	0	—	0	—	1	9	3	7	2	10	4	6	3	9	7	11	2	10	0	28	9
	600	4	9	2	6	0	—	0	—	2	5	1	3	2	3	3	18	3	10	7	13	2	8	2	11	0	28	10
	500	0	—	2	4	0	—	0	—	1	1	1	3	2	4	4	8	8	12	5	14	3	14	2	10	0	28	10
	400	0	—	0	—	0	—	0	—	0	—	2	6	1	17	10	11	9	12	3	17	1	10	2	7	0	28	11
	300	1	7	1	9	0	—	0	—	1	12	1	11	2	18	11	11	5	18	2	14	1	36	1	7	0	26	14
	250	0	—	0	—	0	—	1	5	0	—	3	14	9	18	4	21	6	16	1	9	0	—	1	4	0	25	16
	200	2	8	0	—	0	—	0	—	1	15	0	—	7	15	8	20	3	28	2	12	0	—	0	—	0	23	17
	150	0	—	1	16	1	12	0	—	0	—	2	18	8	19	3	15	2	12	1	38	0	—	0	—	0	18	19
	100	0	—	1	22	0	—	1	21	4	20	6	20	1	26	1	10	0	—	0	—	0	—	0	—	0	14	20
	70	0	—	0	—	0	—	9	20	0	—	1	28	0	—	0	—	0	—	0	—	0	—	0	—	0	10	21
	60	0	—	1	26	1	34	7	22	1	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	10	24
	50	0	—	0	—	3	31	5	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	28
	40	0	—	1	19	2	18	3	35	0	—	0	—	1	21	0	—	0	—	0	—	0	—	0	—	0	7	26
	30	0	—	0	—	2	25	3	29	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	28
	20	0	—	0	—	0	—	2	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	30
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	1	6	2	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	7	8	19	10	0	30	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	10	6	3	6	0	—	0	—	0	—	1	7	1	15	2	6	0	—	4	10	0	—	8	8	0	29	8
	700	2	6	2	6	1	6	0	—	1	5	0	—	2	7	7	8	4	8	2	10	3	16	4	6	1	29	8
	600	2	11	1	6	1	13	2	14	0	—	0	—	3	14	4	7	7	10	5	6	3	10	0	—	1	29	9
	500	1	15	1	10	2	8	0	—	1	5	2	6	0	—	4	6	10	11	6	12	1	9	0	—	1	29	9
	400	1	10	2	21	0	—	0	—	0	—	1	10	2	11	7	11	9	13	5	11	2	10	0	—	0	29	12
	300	1	9	0	—	0	—	1	7	0	—	1	5	3	11	11	14	5	16	1	7	2	7	0	—	0	25	12
	250	0	—	0	—	1	8	0	—	3	8	2	14	5	18	4	16	5	16	2	17	0	—	1	3	0	23	14
	200	0	—	0	—	0	—	1	15	2	22	4	16	4	24	4	17	2	20	4	15	0	—	0	—	0	21	19
	150	0	—	0	—	0	—	1	10	2	18	4	16	4	18	3	23	4	10	1	27	0	—	0	—	0	19	17
	100	0	—	0	—	0	—	4	17	3	19	6	22	3	21	0	—	2	17	0	—	0	—	0	—	0	18	20
	70	0	—	0	—	1	27	7	26	5	26	1	37	0	—	0	—	0	—	0	—	0	—	0	—	0	14	27
	60	0	—	0	—	0	—	6	26	3	24	1	26	0	—	1	50	0	—	0	—	0	—	0	—	0	11	27
	50	0	—	1	5	0	—	7	25	3	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	11	23
	40	0	—	0	—	0	—	4	28	4	41	1	42	0	—	0	—	0	—	0	—	0	—	0	—	0	9	35
	30	0	—	0	—	2	10	2	26	2	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	6	23
	20	0	—	1	41	0	—	0	—	0	—	0	—	0	—	0	—	—	—	0	—	—	—	0	—	0	1	41
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

ASWAN (A) — JULY 1971

Time	Pressure Surface Millibar	Wind between ranges of direction (000—360)°																								Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	6	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	4	1	9	10	11	13	9	0	31	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	4	14	1	24	0	—	0	—	0	—	0	—	0	—	2	4	2	8	4	7	6	10	11	12	0	30	11
	700	0	—	0	—	1	7	0	—	1	15	0	—	2	12	4	12	6	14	6	18	4	13	4	21	0	28	15
	600	1	12	0	—	0	—	0	—	0	—	0	—	2	28	2	24	5	15	2	16	1	24	0	—	0	13	19
	500	0	—	0	—	0	—	0	—	6	—	1	11	1	10	2	5	1	6	1	10	0	—	0	—	0	6	8
	400	0	—	0	—	0	—	1	11	1	11	0	—	0	—	0	—	1	9	0	—	0	—	0	—	0	3	10
	300	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	—	0	1	20
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	2	9	1	12	0	—	0	—	0	—	0	—	0	—	1	8	2	8	4	12	6	12	12	12	2	30	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	16	0	—	0	—	0	—	0	—	0	—	1	9	1	9	4	8	2	10	11	14	7	14	0	29	13
	700	0	—	0	—	0	—	0	—	0	—	1	16	0	—	4	25	12	22	6	18	3	19	3	16	0	29	21
	600	1	9	0	—	0	—	0	—	0	—	0	—	3	34	4	28	6	20	7	15	4	14	2	14	0	27	20
	500	2	8	0	—	3	10	1	9	0	—	1	7	5	14	3	11	3	12	5	13	3	8	1	12	0	27	11
	400	0	—	0	—	9	14	5	11	0	—	3	5	1	6	0	—	3	11	3	12	3	7	0	—	0	27	11
	300	0	—	1	22	1	10	5	16	7	17	2	6	1	5	2	5	2	9	3	6	0	—	1	5	0	25	12
	250	1	3	1	8	2	12	6	18	10	20	1	5	0	—	1	7	1	7	1	7	1	3	0	—	0	25	15
	200	0	—	1	9	1	15	5	26	12	20	5	18	1	4	0	—	0	—	0	—	0	—	0	—	0	25	20
	150	0	—	1	25	0	—	7	25	11	25	1	38	0	—	0	—	0	—	0	—	0	—	0	—	0	20	26
	100	0	—	1	16	1	17	5	28	8	41	1	65	0	—	0	—	0	—	0	—	0	—	0	—	0	16	35
	70	0	—	0	—	0	—	4	45	3	49	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	7	47
	60	0	—	0	—	0	—	4	45	3	45	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	7	45
	50	0	—	0	—	0	—	3	44	2	53	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	48
	40	0	—	0	—	0	—	3	35	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	35
	30	0	—	0	—	0	—	1	47	1	45	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	46
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — JULY 1971

This month was rather normal with respect to the mean daily values of air temperature and relative humidity.

Mild summer weather prevailed the whole month apart from two light warm spells on the 1st & 20th. The second warm spell yielded the highest maximum air temperature for the month (33.4°C) and the lowest relative humidity (30%).

The extreme maximum soil temperatures were lower than the corresponding values of last July at all depths between 2 and 100 cm. with departures between 3.4°C at 2 cm. and 0.5°C at 50 cm. The extreme minimum soil temperatures were higher by 0.1° to 0.6°C than the corresponding values of last July at all depths, except at 20 cm. where it was lower by 1.6°C and at 100 cm. where it was the same as last July.

The daily mean values of actual sunshine duration and wind speed at 1.5 m. were higher than the corresponding values of July 1970 by 0.2 hour and 0.4 m./sec. respectively.

TAHRIR — JULY 1971

For the month as a whole, the mean daily air temperature was slightly lower than normal and the mean daily relative humidity was slightly higher than normal.

The month was intervened by three light warm spells on the (1st, 2nd), 8th and 20th. The last warm spell was associated with the highest maximum air temperature for the month (38.7°C) and the lowest relative humidity (24%). Apart from these warm spells, mild summer weather prevailed with subnormal temperatures.

The extreme maximum soil temperatures were lower than the corresponding values of last July at 2,10 and 20 cm. depths with departures between 1.5°C at 2 cm. and 0.9°C at 20 cm. At 5,50 and 100 cm. depths the extreme soil maxima were higher than last July by 0.2° to 0.5°C. The extreme minimum soil temperatures were higher than last July at all depths and the departures varied between 0.3° and 0.9°C.

The mean daily actual sunshine duration was 0.2 hour higher than the corresponding value of July 1970. The mean daily values of Pan evaporation and wind speed at 1.5 m. were lower than the corresponding values of July 1970 by 0.33 mm. and 0.1 m./sec. respectively.

BAHTIM — JULY 1971

For the month as a whole the mean daily air temperature was slightly lower than the corresponding value of last July, and the mean daily relative humidity was the same.

Mild summer weather prevailed the whole month, apart from three short warm spells on the (1st, 2nd), 8th and 20th. The first warm spell yielded the highest maximum air temperature for the month (37.0°C) on the 2nd together with the lowest relative humidity (21%) and the maximum daily pan evaporation (17.56 mm.)

The extreme maximum soil temperatures were higher than the corresponding values of last July at shallow depths between 2.10 cm. with departures between 2.5°C at 2 cm. and 0.8°C at 10 cm. At deeper layers between 20, 100 cm. the extreme soil maxima were lower than last July and the departures varied between 1.2°C at 20 cm. and 0.3°C at 100 cm. The extreme minimum soil temperature was 0.1°C higher than the corresponding value of last July at 2 cm. depth and was the same at 5 cm. depth. At deeper depths between 10, 100 cm. the extreme soil minima were lower than last July with departures between 1.2° and 0.2°C.

The daily mean actual sunshine duration was the same as the corresponding value of July 1970. The daily mean values of Pan evaporation and wind speed at 1.5 m. were higher than the corresponding values of July 1970 by 0.11 mm. and 0.3 m./sec. respectively.

KHARGA — JULY 1971

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

The month was characterized by three short warm spells in the periods (1*st*-3*rd*), (8*th*-9*th*) and (21*st*, 22*nd*). The last warm spell yielded the highest maximum air temperature for the month (42.5°C) on the 22*nd*. Apart from these warm spells mild summer weather prevailed with subnormal temperatures.

The extreme maximum soil temperatures were higher than the corresponding values of last July at shallow depths between 2, 10 cm. with departures between 1.4° and 0.3°C. At deeper depths between 20, 100 cm. the extreme soil maxima were lower than last July by 0.4° to 0.7°C. The extreme minimum soil temperatures were lower than the corresponding values of last July at shallow depths between 2, 10 cm. and higher at deeper depths between 20, 100 cm. ; the departures varied between 0.2° and 0.8°C.

The daily mean values of actual sunshine duration, pan evaporation and wind speed at 1.5m. were all higher than the corresponding values of July 1970 by 0.2 hour, 0.75 mm. and 0.3 m./sec. respectively.

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

JULY — 1971

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	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
Mersa Matruh. .	28.7	20.3	24.5	22.5	26.1	24.0	24.0	24.0	24.0	21.0	23.1	10.4	0.2	0.0	0.0	0.0
Tahrir	33.5	19.2	25.7	25.3	28.5	24.0	24.0	24.0	24.0	24.0	22.0	12.2	4.6	0.3	0.0	0.0
Bahtim	32.7	18.1	24.9	21.0	28.0	24.0	24.0	24.0	24.0	21.0	18.9	11.5	3.9	0.3	0.0	0.0
Kharga . . .	38.3	23.4	31.5	28.4	34.2	24.0	24.0	24.0	24.0	24.0	24.0	21.6	13.9	6.7	1.0	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

JULY — 1971

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. . . .	33.4	20	27.5	3	23.2	21	18.3	5	16.2	1	—	—
Tahrir	38.7	20	31.0	4	21.4	19,21	16.5	26	15.4	6	—	—
Bahtim	37.0	2	30.1	23	21.0	18	14.7	6	12.5	6	—	—
Kharga	42.5	22	35.2	14	27.8	[illegible]	19.4	15	16.8	15	—	—

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

JULY — 1971

STATION	(Solar+Sky) Radiation gm. cal/cm²	Duration of Bright Sunshine (hours)			Relative Humidity				Vapour pressure (mms)						Evaporation (mms)		Rainfall (mms)		
		Total Actual monthly	Total Possible monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day	Date
Mersa Matruh	605.1	385.8	434.0	89	73	62	30	20	16.8	17.1	23.8	1	9.8	2	8.5	9.24	0.0	0.0	—
Tahrir . . .	685.9	384.1	431.3	89	68	44	24	20	16.4	15.4	20.4	8	12.1	1	7.9	9.79	0.0	0.0	—
Bahtim . . .	675.0	368.6	429.9	86	66	43	21	2	15.1	14.8	19.8	31	10.5	2	8.2	9.69	0.0	0.0	—
Kharga . .	598.2	390.4	418.8	93	25	19	10	1,21	8.5	8.8	13.9	7	5.4	21	20.2	19.37	0.0	0.0	—

TABLE C 4 —EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS IN DIFFERENT FIELDS

JULY — 1971

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	41.1	38.4	34.2	39.0	28.2	25.6	23.5	—	—	—	—	—	—	—	—	—
	L	25.1	24.3	24.5	25.0	26.8	24.5	22.4	—	—	—	—	—	—	—	—	—
Tahrir	H	53.8	49.2	42.0	36.5	32.9	31.0	28.7	27.4	—	—	—	—	—	—	—	—
	L	28.6	27.4	27.2	30.3	31.2	30.1	27.4	26.2	—	—	—	—	—	—	—	—
Bahtime	H	55.7	46.6	40.4	34.2	31.4	29.7	26.8	25.0	—	—	—	—	—	—	—	—
	L	29.0	28.3	28.6	31.4	30.3	28.3	25.5	24.2	—	—	—	—	—	—	—	—
Kharga	H	58.2	50.8	43.5	37.6	34.9	32.7	30.4	29.0	—	—	—	—	—	—	—	—
	L	21.3	25.3	29.4	32.8	33.6	31.9	29.4	28.2	—	—	—	—	—	—	—	—

TABLE C 5.—SURFACE WIND

JULY — 1971

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 Matrouh	4.9	3.6	6.2	31	31	22	3	0	0	0	33	20
Tahrir	2.2	1.5	3.0	30	7	0	0	0	0	0	23	16,17
Bahtim	2.2	1.3	3.2	27	2	0	0	0	0	0	25	3
Kharga	3.9	2.7	5.0	31	27	13	2	1	0	0	35	9

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THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 14 NUMBER 8

AUGUST, 1971

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

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

Orders for publications should be addressed to :

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

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

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

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

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

THE ANNUAL REPORT

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

CLIMATOLOGICAL NORMALS FOR EGYPT

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

METEOROLOGICAL RESEARCH BULLETIN

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

TECHNICAL NOTES

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

THE ARAB REPUBLIC OF EGYPT

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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Note : For explanatory notes on tables please refer to Volume 14. Number 1 (January 1971).

GENERAL SUMMARY OF WEATHER CONDITIONS

AUGUST 1971

Normal summer in general, excessively humid in the north and remarkably dry in the south.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather in this month was generally mild and humid in the northern parts, hot and moderately humid in the middle parts & excessively hot and remarkably dry in the southern parts.

Early morning mist developed in several days over scattered localities in Delta, Canal and Cairo areas.

Light rising sand was reported in few days over few scattered localities mainly in Upper Egypt & the Red Sea districts.

PRESSURE DISTRIBUTION

The prevailing pressure distribution over the synoptic surface charts in this month was the usual summer type and was characterized by the following pressure systems.

— The Atlantic anticyclone and its extension through Europe.

— Deep Atlantic depressions passing through North Europe and their extended troughs or secondary depressions through Central Europe.

— The complex monsoon low pressure system over the Arabian gulf, Arabia & Sudan.

— A ridge of high pressure over Central Mediterranean and Libya.

It is worthy of mention that frequent secondary depressions or troughs passed through Central Europe in this month, and traversed the Black Sea area and its vicinities round the 4th, 10th, 14th, 17th, 20th, 24th & 30th. The approach of these secondary depressions and their transits through the Black Sea were associated with westward elongations of the Iraq monsoon trough through East Mediterranean and Asia Minor areas.

The barometric pressure over Egypt in this month experienced consecutive falls during the periods of the westward elongations of the Iraq monsoon trough and attained consecutive minima round the 4th, 10th, 14th, 17th, 20th, 24th & 30th. respectively.

On the other hand, the barometric pressure was slightly above normal round the periods (1st-3rd), (7th-9th), (21st-22nd) & (25th-29th), when high pressure over Central Mediterranean & Libya extended slightly eastwards.

Over the upper air charts, the important upper pressure patterns were :

— The deep upper low pressure systems over North Atlantic and North Urasia.

— Secondary upper lows or troughs through middle latitudes, passing through East Mediterranean and north of Egypt on the 5th, 10th, 14th, 21st, 26th & 31st.

— Upper high pressure belt south of latitude 30°N.

SURFACE WIND

Light to moderate N/NW winds prevailed most of this month, and freshened during few days in few scattered localities. Calm winds were frequent most of night and early morning intervals in scattered localities.

TEMPERATURE

Both maximum and minimum air temperatures oscillated slightly round normal most of this month.

Maximum air temperature values ranged most of the month between 29°C & 32°C in the northern parts, between 33°C & 37°C in the middle parts, between 39°C & 42°C in the southern parts. Minimum air temperature values ranged generally between 20°C & 24°C in the northern and middle parts, between 23°C & 27°C in the southern parts.

The absolute maximum air temperature for Egypt in this month was 44.2°C reported at Luxor on the 7th.

The absolute minimum air temperature for Egypt in this month was 15.7°C reported at Shebin El Kom on the 26th.

PRECIPITATION

This month was rainless as usual.

Cairo, July 1972

Chairman (M.F. TAHA)
Board of Directors

SURFACE DATA

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

AUGUST — 1971

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms
			Maximum		Minimum			Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average	$\frac{A+B}{2}$	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	Mean
Sallum.	1009.6	—0.7	30.8	—0.3	21.6	0.0	26.2	26.0	—0.3	21.5	—0.4	66	0	—	—	—	8.9
Mersa Matruh (A)	1009.4	—0.7	29.8	—0.1	21.3	+0.3	25.6	25.6	+0.1	22.7	+0.9	77	+5	369.0	412.5	89	7.5
Alexandria . (A)	1008.6	—0.2	30.6	0.0	22.8	0.0	26.7	26.3	—0.4	22.7	—0.3	72	0	339.2	411.1	82	5.5
Port Said.. . (A)	1006.1	—1.9	31.8	+1.0	23.2	—1.7	27.5	26.8	—0.5	23.0	—0.7	71	—1	360.8	411.1	88	5.4
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1007.6	—0.7	32.0	—2.6	20.0	+0.5	26.0	25.4	—1.5	22.1	+0.1	74	+10	345.5	410.6	84	3.4
Cairo. . . . (A)	1007.9	—0.6	34.1	—0.6	22.1	+0.3	28.1	27.6	—0.1	21.9	+0.1	58	+2	—	—	—	12.9
Fayoum.	—	—	36.6	+0.1	21.3	—0.3	29.0	28.6	—0.4	21.6	+0.3	52	+4	—	—	—	8.4
Minya. . . . (A)	1007.2	—0.2	36.5	+0.1	20.7	+0.2	28.6	28.5	+0.2	21.0	+0.2	49	—1	371.9	406.6	91	11.0
Assyout. . . (A)	1005.5	—1.5	36.3	—0.6	22.0	—0.4	29.2	29.5	—0.9	19.5	—0.3	35	0	—	—	—	17.0
Luxor. . . (A)	1005.5	+0.4	40.5	—0.5	22.9	—0.7	31.7	31.8	—1.1	20.0	0.0	29	+3	—	—	—	13.9
Aswan. . . . (A)	1005.5	+0.4	40.8	—0.5	25.1	—0.1	32.8	33.0	—0.8	18.5	+0.1	28	+12	—	—	—	27.4
Siwa.	1009.2	—0.6	36.9	—0.8	21.6	+0.9	29.2	29.3	—0.5	19.4	—0.3	35	—1	363.2	408.1	89	14.5
Bahariya.	1007.5	—0.7	36.7	—0.1	21.6	+0.8	29.2	29.3	—0.3	19.1	—0.7	33	—3	—	—	—	13.7
Farafra.	1008.7	—0.7	37.2	—0.3	21.3	+0.2	29.2	29.3	—0.6	18.7	+0.8	31	+6	—	—	—	17.7
Dakhla	1008.1	+1.2	37.8	—1.0	20.8	—2.0	29.3	29.7	—1.1	18.1	+0.2	27	+4	—	—	—	20.7
Kharga	1006.6	0.0	39.7	+0.4	22.8	0.0	31.2	32.0	+0.1	17.5	—1.6	22	—4	373.7	403.3	93	19.1
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1005.0	+0.5	34.6	+1.4	25.3	+0.1	30.0	30.5	+0.4	21.8	—0.3	44	—4	370.9	405.3	91	13.5
Quseir	1004.9	—0.1	32.9	—0.8	26.5	—0.4	29.7	30.1	—0.2	21.9	—0.5	46	—1	—	—	—	15.5

Table A 2.– MAXIMUM AND MINIMUM AIR TEMPERATURES

AUGUST — 1971

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	33.8	10·14	28.0	1	31	20	0	0	0	21.0	—	23.7	4	18.4	23	0	0	0	0
Mersa Matruh	32·2	10	28.3	3	31	10	0	0	0	20.1	—	24.6	27	19.0	24	0	0	0	0
Alexandri (A)	32.5	15	29.5	12	31	18	0	0	0	21.0	—	24.9	15	20.1	6	0	0	0	0
Port Said (A)	33.7	6	29.8	30	31	30	0	0	0	22.8	—	24.2	7,21,26	20.2	31	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	34.1	16	29.4	30	31	30	0	0	0	—	—	22.3	14	17.7	25	0	0	0	0
Cairo (A)	37.8	6	31.1	31	31	31	6	0	0	—	—	23.4	6,10	19.1	25	0	0	0	0
Fayoum	40.0	7	33.0	31	31	31	26	0	0	—	—	24.0	17	19.0	19	0	0	0	0
Minya (A)	39.7	7	33.4	31	31	31	24	0	0	19.1	—	23.5	16	18.6	31	0	0	0	0
Assyout (A)	41.4	6	33.0	31	31	31	26	1	0	20.1	—	24.8	15	20.8	31	0	0	0	0
Luxor (A)	44.2	7	38.4	31	31	31	31	16	0	18.0	—	25.8	17	20.8	20,21	0	0	0	0
Aswan (A)	43.8	6	39.0	2	31	31	31	28	0	—	—	27.5	8	22.8	24	0	0	0	0
Siwa	40.3	11	32.6	31	31	31	26	1	0	19.7	—	23.3	13	19.0	18	0	0	0	0
Bahariya	40.7	6	32.4	31	31	31	26	1	0	19.9	—	24.7	7	18.5	25	0	0	0	0
Farafra	39.5	7	33.4	31	31	31	28	0	0	21.0	—	23.6	15	17.0	29	0	0	0	0
Dakhla	40.3	7	34.8	25	31	31	30	1	0	20.7	—	25.1	16	16.8	3	0	0	0	0
Kharga	42.8	7	36.7	24	31	31	31	13	0	20.6	—	27.2	23	19.2	30	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	37.6	16	31.6	25	31	31	8	0	0	—	—	27.4	12	22.8	29	0	0	0	0
Quseir	36.4	17	31.0	1	31	31	2	0	0	22.5	—	28.3	8	24.6	24	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

AUGUST — 1971

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	1.3	0.9	1.2	0.5	1.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	1.0	1.7	0.7	1.0	1.5	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Alexandria (A)	3.8	2.9	2.5	2.9	3.2	0.0	— 0.4	0.0	—	0	0	0	0	0	0	0
Port Said (A)	1.3	2.3	0.4	0.4	1.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.4	2.2	1.4	0.0	1.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Cairo (A)	1.1	2.7	0.9	0.1	1.2	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.7	0.6	0.4	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.0	0.5	0.6	0.3	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.0	0.2	0.2	0.0	0.1	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	0.2	0.3	0.9	0.3	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Bahariya	0.1	0.5	0.4	0.2	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Farafra	0.0	0.0	0.1	0.1	0.1	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	0.2	0.1	0.1	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.0	0.0	0.3	0.2	0.1	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0

Table A 4. DAYS OF OCCURRENCE OF MISCELLANEOUS WTAEHER PHENOMENA

AUGUST 1971

Station	Precipitation				Fog	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 Sand-storm Vis < 1000 metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Pellets	Hail											
Sallum	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
Mersa Matruh (A)	0	0	0	0	0	0	8	1	0	0	3	2	0	22	0
Alexandria (A)	0	0	0	0	0	0	0	0	1	0	0	0	0	13	0
Port Said (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	20	0	0	0	0	0	0	29	0
Cairo	0	0	0	0	0	0	20	6	8	0	1	0	0	24	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	4	0	7	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	6	0	2	0	0	31	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	0	1	0	31	0
Siwa	0	0	0	0	0	0	0	0	0	0	1	0	0	31	—
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
Farafra	0	0	0	0	0	0	0	0	0	0	0	0	0	31	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	1	0	0	31	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	3	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 AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

AUGUST — 1971

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	1	1	0	1—10	39	130	38	11	5	1	1	2	2	13	84	206	532
				11—27	11	48	3	0	0	0	0	0	0	0	59	89	210
				28—47	0	0	0	0	0	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**	**178**	**41**	**11**	**5**	**1**	**1**	**2**	**2**	**13**	**143**	**295**	**742**
Mersa Matruh	8	0	0	1—10	48	38	4	0	0	1	0	7	54	113	79	117	461
				11—27	33	5	0	0	0	0	0	0	0	6	88	143	275
				28—47	0	0	0	0	0	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**	**43**	**4**	**0**	**0**	**1**	**0**	**7**	**54**	**119**	**167**	**260**	**736**
Alexandrie	2	0	0	1—10	27	8	0	1	0	3	13	6	8	72	192	336	666
				11—27	1	0	9	0	0	0	0	0	0	7	47	21	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	**28**	**8**	**0**	**1**	**0**	**3**	**13**	**6**	**8**	**79**	**239**	**357**	**742**
Port Said	30	0	0	1—10	128	19	6	3	2	1	0	0	12	155	150	215	691
				11—27	1	0	0	0	0	0	0	0	1	6	10	5	23
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**129**	**19**	**6**	**3**	**2**	**1**	**0**	**0**	**13**	**161**	**160**	**220**	**714**
Tanta	7	0	5	1—10	81	23	7	4	1	0	5	28	89	160	140	151	689
				11—27	6	1	0	0	0	0	0	0	0	0	14	22	43
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**87**	**24**	**7**	**4**	**1**	**0**	**5**	**28**	**89**	**160**	**154**	**173**	**732**
Cairo	103	0	17	1—10	89	48	16	13	6	0	1	0	12	43	127	161	516
				11—27	36	7	0	1	0	0	0	0	0	0	17	47	108
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**125**	**55**	**16**	**14**	**6**	**0**	**1**	**0**	**12**	**43**	**144**	**208**	**624**
Fayoum	2	2	0	1—10	254	250	13	4	4	3	2	9	6	25	85	81	736
				11—27	0	4	0	0	0	0	0	0	0	0	0	0	4
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**254**	**254**	**13**	**4**	**4**	**3**	**2**	**9**	**6**	**25**	**85**	**81**	**740**
Minya	4	0	0	1—10	392	138	8	3	2	8	6	8	12	10	17	61	668
				11—27	62	6	0	0	0	0	0	0	0	0	0	4	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	**454**	**144**	**8**	**3**	**2**	**8**	**6**	**8**	**12**	**10**	**17**	**68**	**740**

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

AUGUST – 1971

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 / 164	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions
Assyout	31	1	7	1—10	84	20	4	3	4	9	10	2	8	114	167	170	595
				11—27	23	0	0	0	0	1	0	0	0	2	9	75	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	**107**	**20**	**4**	**3**	**4**	**10**	**10**	**2**	**8**	**116**	**176**	**245**	**705**
Luxor	64	0	0	1—10	18	10	12	14	12	51	105	55	78	124	151	34	664
				11—27	0	0	0	0	0	0	0	0	0	3	13	0	16
				28—47	0	0	0	0	0	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**	**10**	**12**	**14**	**12**	**51**	**105**	**55**	**78**	**127**	**164**	**34**	**680**
Aswan	8	2	0	1—10	169	47	10	4	8	5	3	2	3	23	49	174	497
				11—27	45	3	0	0	0	0	0	0	0	16	72	101	237
				28—47	0	0	0	0	0	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**	**50**	**10**	**4**	**8**	**5**	**3**	**2**	**3**	**39**	**121**	**275**	**734**
Siwa	23	12	0	1—10	120	105	87	39	16	13	5	2	2	39	116	127	671
				11—27	2	18	2	0	0	5	0	0	0	0	7	9	38
				28—27	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**122**	**123**	**89**	**39**	**16**	**13**	**5**	**2**	**2**	**39**	**123**	**136**	**709**
[illegible]	18	2	0	1—10	44	8	5	6	7	7	17	37	80	123	163	202	699
				11—27	4	0	0	0	0	0	0	0	0	0	1	20	25
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**48**	**8**	**5**	**6**	**7**	**7**	**17**	**37**	**80**	**123**	**164**	**222**	**724**
Kharga	2	34	0	1—10	129	90	38	13	6	9	1	6	10	26	88	199	615
				11—27	32	4	0	0	0	0	0	0	0	2	11	44	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	**161**	**94**	**38**	**13**	[illegible]	**9**	**1**	**6**	**10**	**28**	**99**	**243**	**708**
Hurghada	26	0	6	1—10	60	70	15	9	7	26	7	6	2	3	132	67	404
				11—27	164	39	0	0	0	0	0	0	0	0	37	73	313
				28—47	1	0	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	**225**	**109**	**15**	**9**	**7**	**26**	**7**	**6**	**2**	**3**	**169**	**140**	**718**
Quseir	9	2	1	1—10	134	90	61	34	13	10	25	34	12	19	49	109	590
				11—27	29	84	27	0	0	0	0	0	0	0	2	0	142
				28—47	0	0	0	0	0	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**	**174**	**88**	**34**	**13**	**10**	**25**	**34**	**12**	**19**	**51**	**109**	**732**

UPPER AIR CLIMATOLOGICAL DATA

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

AUGUST — 1971

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh (A) 0000 U.T.	Surface	30	*1009mb.	*1012mb.	*1004mb.	30	23.6	26.0	20.8	30	20.4
	1000	30	105	133	63	30	23.5	25.6	21.4	30	20.6
	850	30	1516	1511	1470	30	18.3	23.2	13.5	30	6.4
	700	30	3153	3212	3102	30	9.8	20.9	4.9	30	— 6.2
	600	30	4415	4496	4361	30	2.5	7.2	— 1.1	30	—14.5
	500	30	5867	5964	5808	30	— 6.3	— 0.5	—11.0	30	—22.8
	400	30	7580	7693	7501	30	—16.4	—13.2	—20.4	30	—31.5
	300	30	9689	9805	9612	30	—30.1	—28.0	—35.0	30	—43.5
	250	30	10963	11081	10848	30	—39.1	—36.7	—42.0	28	—51.2
	200	28	12455	12590	12328	28	—49.8	—47.8	—52.3	26	—60.6
	150	28	14286	14448	14140	28	—62.5	—60.3	—64.1	—	—
	100	27	16734	16900	16585	27	—71.2	—68.3	—75.9	—	—
	70	27	18853	19011	18715	27	—66.4	—59.3	—70.1	—	—
	60	23	19817	19990	19600	23	—62.3	—58.7	—65.6	—	—
	50	23	20930	21097	20785	23	—57.4	—56.4	—61.3	—	—
	40	14	22400	22500	22210	14	—55.7	—52.0	—58.0	—	—
	30	14	24171	24244	24097	14	—53.3	—50.6	—55.9	—	—
	20	6	26846	26913	26675	6	—46.9	—41.0	—49.5	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	31	*992mb.	*995 mb.	*987mb.	31	23.9	27.8	21.2	31	19.5
	1000	31	67	96	33	—	—	—	—	—	—
	850	31	1481	1516	1443	31	19.6	22.4	17.0	31	7.0
	700	31	3120	3167	3070	31	9.2	14.3	4.8	29	— 5.6
	600	30	4387	4444	4324	30	3.6	6.5	0.9	30	—13.5
	500	30	5849	5905	5768	30	— 4.0	— 1.0	— 7.5	30	—20.3
	400	29	7575	7 40	7479	29	—14.4	—11.3	—17.6	29	—28.6
	300	29	9692	9761	9631	28	—29.8	—28.0	—32.3	28	—42.5
	250	29	10959	11040	10773	29	—39.6	—37.4	—47.5	28	—51.3
	200	28	12460	12533	12378	28	—50.6	—48.6	—53.5	28	—60.7
	150	28	14280	14356	14164	28	—63.6	—60.5	—68.9	1	—70.4
	100	25	16701	16777	16514	25	—74.3	—70.7	—80.6	—	—
	70	21	18805	18910	18554	21	—68.2	—63.6	—73.0	—	—
	60	17	19758	19830	19470	17	—63.8	—59.5	—69.2	—	—
	50	17	20874	21012	20780	17	—60.5	—55.3	—66.9	—	—
	40	13	22388	22820	22220	13	—57.4	—52.8	—62.8	—	—
	30	11	24112	24287	24008	11	—53.7	—48.7	—58.9	—	—
	20	6	26768	26947	26642	6	—47.7	—42.8	—51.9	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 0000 U.T.	Surface	31	*984mb.	*986mb.	*981mb.	31	27.9	29.7	25.0	31	5.8
	1000	31	47	69	23	—	—	—	—	—	—
	850	31	1487	1520	1462	31	24.1	29.6	21.2	31	— 1.8
	700	31	3150	3205	3117	30	12.1	16.2	7.7	30	— 6.9
	600	31	4421	4488	4391	30	4.5	6.7	1.6	30	—12.8
	500	31	5884	5946	5851	31	— 4.4	— 1.7	— 6.9	31	—22.5
	400	30	7613	7667	7574	30	—14.9	—12.5	—18.3	30	—33.3
	300	30	9727	9799	9694	30	—30.4	—28.2	—35.3	29	—46.2
	250	30	10994	11048	10961	30	—40.4	—37.4	—43.7	29	—54.3
	200	28	12474	12559	12355	27	—51.7	—47.2	—54.1	26	—63.9
	150	27	14290	14399	14208	27	—65.4	—61.7	—67.5	—	—
	100	26	16686	16992	16565	26	—76.5	—71.0	—83.5	—	—
	70	22	18776	18953	18679	22	—69.1	—62.5	—74.1	—	—
	60	14	19739	19990	19650	14	—65.1	—63.3	—68.9	—	—
	50	13	20809	20893	20729	13	—61.9	—59.3	—64.8	—	—
	40	12	22290	22430	22000	12	—58.6	—55.9	—60.6	—	—
	30	12	24016	24113	23924	12	—56.3	—52.9	—58.5	—	—
	20	10	26595	26745	26108	10	—50.1	—45.8	—54.0	—	—
	10	1	31225	—	—	1	—42.9	—	—	—	—

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

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

UPPER AIR CLIMATOLOGICAL DATA

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

AUGUST — 1971

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 UT	Surface	31	1009m.b.*	1012m.b.*	1005m.b.*	31	28.2	30.6	24.7	31	21.4
	1000	31	109	135	73	31	27.3	29.8	23.4	31	19.9
	850	31	1526	1551	1494	31	19.2	23.2	14.2	30	6.3
	700	30	3169	3220	3125	30	10.2	16.8	5.6	30	— 6.1
	600	30	4436	4499	4383	30	2.9	5.7	— 1.2	30	—14.4
	500	30	5891	5971	5814	30	— 5.6	— 0.8	—10.8	30	—21.3
	400	29	7611	7677	7496	29	—16.5	—11.0	—28.7	28	—31.3
	300	28	9725	9814	9614	28	—28.9	—26.9	—33.1	28	—42.7
	250	26	11007	11103	10880	26	—38.2	—35.0	—42.7	26	—50.9
	200	26	12526	12616	12394	26	—49.2	—47.1	—52.7	25	—60.1
	150	24	14345	14467	14187	24	—61.6	—58.3	—66.4	3	—71.1
	100	22	16889	16926	16635	22	—70.2	—66.3	—74.0	—	—
	70	22	18897	19056	18781	22	—63.6	—60.3	—66.6	—	—
	60	21	19920	20070	19640	21	—59.4	—57.2	—62.9	—	—
	50	21	21062	21176	20916	21	—56.2	—54.4	—59.0	—	—
	40	17	22492	22630	22130	17	—53.3	—51.2	—57.2	—	—
	30	15	24341	24496	24196	15	—49.4	—46.5	—54.3	—	—
	20	7	26884	27110	26492	7	—47.8	—44.4	—57.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	30	991m.b.*	994m.b.*	988m.b.*	30	33.3	38.2	30.1	30	13.3
	1000	29	62	86	32	—	—	—	—	—	—
	850	29	1495	1529	1467	29	21.1	24.0	17.2	29	4.4
	700	29	3143	3181	3099	29	10.9	16.2	7.3	29	—11.5
	600	29	4416	4553	4362	29	4.7	7.4	1.2	29	—18.9
	500	28	5875	5936	5816	28	— 3.1	1.4	— 6.7	28	—25.3
	400	28	7609	7674	7547	28	—13.3	— 9.3	—17.6	28	—33.2
	300	28	9733	9815	9646	28	—28.4	—25.9	—34.9	28	—45.1
	250	28	11012	11115	10916	28	— 38.0	—35.3	—41.7	28	—53.2
	200	28	12513	12623	12412	28	—49.3	—47.2	—52.7	27	—62.5
	150	26	14348	14544	14233	26	—62.0	—55.1	—64.2	1	—68.8
	100	25	16770	16873	16647	25	—72.8	—68.2	—76.3	—	—
	70	19	18886	18998	18702	19	—65.6	—61.9	—69.8	—	—
	60	18	19807	19990	19670	18	—61.6	—59.4	—64.9	—	—
	50	18	20958	21077	20771	18	—57.2	—54.9	—59.7	—	—
	40	16	22479	22600	22260	16	—54.1	—51.0	—56.8	—	—
	30	16	24245	24390	24009	16	—50.3	—47.0	—53.4	—	—
	20	13	26908	27092	26794	13	—46.6	—42.4	—54.7	—	—
	10	3	31775	31879	31646	3	—34.9	—33.0	—37.3	—	—
Aswan 1200 U.T.	Surface	25	983m.b.*	987m.b.*	980m.b.*	25	39.9	41.3	37.0	25	7.1
	1000	25	37	62	07	—	—	—	—	—	—
	850	25	1500	1523	1474	25	26.2	28.8	23.8	25	— 1.7
	700	23	3166	3204	3099	23	12.3	17.4	7.3	23	— 8.7
	600	23	4440	4488	4366	23	5.2	8.0	2.1	23	—17.4
	500	22	5903	5959	5829	22	— 4.3	1.8	— 7.9	22	—26.2
	400	21	7633	7716	7570	21	—14.0	—10.0	—17.2	21	—36.1
	300	22	9760	9866	9699	22	—28.8	—27.0	—30.7	21	—47.6
	250	21	11042	11157	10983	21	—38.7	—36.2	—40.0	21	—55.8
	200	21	12490	12670	12474	21	—50.4	—48.0	—51.7	21	—65.2
	150	21	14367	14512	14294	21	—63.5	—61.7	—65.5	—	—
	100	21	16768	16943	16684	21	—75.3	—71.0	—78.5	—	—
	70	17	18878	19048	18754	17	—66.5	—62.2	—71.0	—	—
	60	12	19841	20060	19490	12	—62.6	—59.1	—65.2	—	—
	50	12	20967	21155	20831	12	—58.2	—53.1	—63.1	—	—
	40	9	22473	22680	22400	9	—55.2	—51.0	—59.3	—	—
	30	9	24238	24489	24129	9	—49.8	—47.2	—52.8	—	—
	20	8	26937	27229	26792	8	—42.6	—36.0	—51.7	—	—
	10	—	—	—	—	—	—	—	—	—	—

N — 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

AUGUST — 1971

	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)										
0000 U.T.	M. Matruh (A)	4857 (30)	569 (30)	—16.5 (30)	5800	505	—21.8	4080	623	—11.8	15993 (27)	114 (27)	—71.2 (27)	17300	92	—74.4	14950	133	—65.7	8260	305	270	85
	Helwan . . .	5069 (30)	555 (30)	—16.3 (30)	5730	503	—35.2	3960	630	— 6.4	16371 (20)	106 (20)	—74.4 (20)	17720	85	—76.6	15500	134	—68.2	12420	200	240	75
	Aswan . . (A)	5179 (31)	551 (31)	—17.2 (31)	5670	516	—25.0	4630	587	— 7.5	16264 (23)	108 (23)	—77.6 (23)	18070	80	—78.6	15400	125	—72.9	4320	606	256	41
		(N)	(N)	(N)							(N)	(N)	(N)										
1200 U.T.	M. Matruh (A)	4988 (30)	563 (30)	—17.5 (30)	5710	512	—35.1	3850	634	—10.7	16331 (22)	109 (22)	—70.6 (22)	17820	85	—76.1	15420	126	—70.3	12784	182	290	75
	Helwan . . .	5336 (28)	537 (28)	—22.7 (28)	6100	489	—23.4	4700	580	—23.5	16415 (21)	107 (21)	—73.3 (21)	17640	88	—74.3	15220	130	—68.3	30070	13	080	76
	Aswan . . (A)	5258 (22)	539 (22)	—22.2 (22)	6230	484	—27.9	4820	573	—23.4	16630 (17)	103 (17)	—76.3 (17)	18200	79	—75.5	15710	121	—73.1	27315	19	090	75

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

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

MERSA MATRUH (A)— AUGUST 1971

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.	Suface	2	10	2	9	0	—	0	—	0	—	0	—	0	—	2	4	6	5	7	7	5	10	4	10	2	30	7
	1000	3	18	3	12	0	—	1	12	0	—	0	—	0	—	0	—	1	7	4	8	4	10	12	12	0	28	12
	850	3	14	10	16	9	16	1	10	0	—	0	—	0	—	0	—	0	—	0	—	3	7	2	19	0	28	15
	700	5	12	8	12	3	13	1	8	0	—	0	—	0	—	0	—	0	—	1	8	2	12	6	14	0	26	12
	600	7	14	5	13	1	7	1	16	0	—	0	—	0	—	0	—	0	—	3	8	5	12	4	17	0	26	14
	500	3	15	2	22	0	—	1	22	0	—	0	—	0	—	0	—	0	—	5	15	5	14	9	17	0	25	16
	400	2	13	2	16	1	20	0	—	0	—	0	—	0	—	0	—	1	12	4	35	11	24	4	20	0	25	23
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	8	15	39	6	30	1	33	0	24	34
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	7	0	—	11	43	11	34	0	—	0	24	36
	200	0	—	0	—	0	—	0	—	0	—	1	5	1	8	0	—	2	25	13	43	4	36	0	—	0	21	36
	150	0	—	0	—	0	—	0	—	0	—	0	—	2	12	0	—	3	34	12	30	3	39	0	—	0	20	30
	100	0	—	0	—	0	—	0	—	1	15	1	12	1	10	2	14	2	20	8	13	0	—	0	—	0	15	14
	70	0	—	0	—	0	—	1	8	6	23	1	18	1	8	1	7	0	—	0	—	0	—	0	—	0	10	15
	60	0	—	0	—	0	—	0	—	3	24	3	12	0	—	0	—	0	—	0	—	0	—	0	—	0	6	18
	50	0	—	0	—	0	—	0	—	2	22	1	36	0	—	0	—	0	—	0	—	0	—	0	—	0	3	26
	40	0	—	0	—	0	—	0	—	2	26	1	21	0	—	0	—	0	—	0	—	0	—	0	—	0	3	25
	30	0	—	0	—	0	—	0	—	2	35	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	35
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	4	12	1	2	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	7	16	18	14	0	31	14
	1000	10	20	1	14	0	—	0	—	0	—	0	—	0	—	3	18	7	16	3	11	3	22	4	18	0	31	18
	850	7	13	7	12	2	11	0	—	0	—	0	—	0	—	1	20	1	15	2	14	2	12	8	14	0	30	13
	700	3	11	2	9	6	11	0	—	2	12	0	—	0	—	0	—	2	15	3	12	6	12	6	17	0	30	13
	600	8	12	3	8	2	12	3	4	0	—	0	—	0	—	1	18	2	14	3	13	3	13	5	15	0	30	12
	500	0	—	3	9	2	18	0	—	0	—	0	—	0	—	1	4	2	20	6	18	9	20	7	16	0	30	17
	400	3	13	1	13	0	—	0	—	0	—	1	5	0	—	0	—	1	23	6	35	13	23	4	20	0	29	23
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	62	1	31	14	35	11	26	0	—	0	27	33
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	13	37	8	37	3	15	0	25	34
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	14	12	38	9	35	2	8	0	25	33
	150	0	—	0	—	0	—	0	—	0	—	1	4	1	18	1	14	1	21	9	27	6	41	1	18	0	20	28
	100	1	13	0	—	0	—	1	11	0	—	3	17	3	10	2	14	1	12	5	15	1	27	0	—	0	17	14
	70	0	—	1	20	0	—	0	—	4	20	7	21	2	18	0	—	0	—	0	—	0	—	0	—	0	14	20
	60	0	—	0	—	0	—	1	21	5	18	6	26	0	—	0	—	0	—	0	—	0	—	0	—	0	12	22
	50	0	—	0	—	1	28	0	—	3	23	5	27	0	—	0	—	0	—	0	—	0	—	0	—	0	9	26
	40	0	—	0	—	2	36	0	—	2	28	3	27	0	—	0	—	0	—	0	—	0	—	0	—	0	7	30
	30	0	—	0	—	0	—	0	—	3	34	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	34
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

HELWAN — AUGUST 1971

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

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

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

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

ASWAN (A) — AUGUST 1971

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	13	10	4	8	1	5	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	10	8	8	2	30	8
	1000	—	—	—	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	7	15	1	5	0	—	0	—	0	—	0	—	0	—	1	5	0	—	3	10	9	13	7	15	0	28	13
	700	0	—	0	—	2	11	0	—	0	—	0	—	3	6	0	—	5	16	12	17	3	10	2	10	0	27	14
	600	0	—	1	22	0	—	0	—	1	8	0	—	1	16	3	17	4	17	8	16	0	—	1	31	0	19	17
	500	0	—	1	13	1	17	1	4	0	—	0	—	0	—	3	18	0	—	0	—	0	—	3	12	0	9	14
	400	0	—	1	9	0	—	0	—	1	14	0	—	0	—	1	10	0	—	0	—	0	—	0	—	0	3	11
	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T	Surface	3	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	1	10	12	6	11	2	25	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	5	11	[illegible]	12	5	[illegible]	0	24	12
	700	0	—	0	—	0	—	0	—	0	—	0	—	1	6	3	16	6	18	7	18	6	17	0	—	0	23	17
	600	0	—	0	—	0	—	0	—	0	—	0	—	1	22	3	20	10	18	6	18	2	22	0	—	0	22	17
	500	1	8	0	—	0	—	0	—	0	—	0	—	1	9	12	14	2	20	2	5	3	5	1	8	0	22	12
	400	0	—	0	—	1	6	5	9	4	9	1	7	5	14	1	12	3	7	1	8	0	—	0	—	0	21	10
	300	0	—	0	—	2	8	6	15	3	13	5	16	2	14	2	10	0	—	0	—	2	8	0	—	0	22	13
	250	0	—	0	—	1	13	3	15	7	18	6	12	2	19	1	12	1	2	0	—	0	—	0	—	0	21	15
	200	0	—	0	—	1	10	3	19	8	19	6	27	0	—	1	7	0	—	0	—	0	—	1	2	0	20	19
	150	0	—	0	—	0	—	6	18	8	34	3	23	0	—	0	—	1	8	0	—	0	—	0	—	0	18	26
	100	0	—	0	—	0	—	4	33	9	39	1	3	0	—	0	—	0	—	0	—	0	—	0	—	0	14	34
	70	0	—	0	—	0	—	7	41	3	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	10	40
	60	0	—	0	—	0	—	7	34	3	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	10	36
	50	0	—	0	—	0	—	6	41	3	37	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	9	40
	40	0	—	0	—	0	—	6	35	2	32	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	35
	30	0	—	0	—	0	—	5	43	3	39	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	42
	20	—	—	0	—	0	—	2	58	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	58
	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.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — AUGUST 1971

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

The daily maximum air temperatures were slightly above normal most days of the month. The highest maximum air temperature for the month was 32.2°C reported on the 10th, together with the lowest relative humidity (40%).

The extreme maximum soil tmperatures were lower than the corresponding values of last August at all depths between 2 and 100 cm. apart from the 10 and 50 cm. depths where the values were higher than last August ; the departures varied between 0.2°C and 1.0°C. The extreme minimum soil temperatures were lower than the corresponding values of last August at all depths apart from the 50 cm. depth where the value was the same as last August ; the departures were slight and not exceeding 0.4°C.

The mean daily actual sunshine duration was 0.1 hour more than the corresponding value of last August. The mean daily values of wind speed at 1.5 m. and pan evaporation were lower than the corresponding values of last August by 0.5m./sec. and 4.41 mm. respectively.

TAHRIR — AUGUST 1971

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

The month was characterized by five summer heat waves in the periods : (5th-6th), (9th-11th), (14th-17th), 20th and (28th-29th) : Otherwise, normal summer weather was experienced. The highest maximum air temperature for the month was 37.6°C reported on both the 16th and 29th. The lowest relative humidity was 22% reported on the 29th.

The extreme maximum soil temperatures were the same as last August at both 2 and 10 cm. depths ; lower by 0.1°C at 20 cm. and higher than last August at 5, 50, 100 cm. depths with departures between 1.3°C and 0.7°C. The extreme minimum soil temperatures were higher than the corresponding values of last August at all depths between 2 and 100 cm. with departures between 1.4°C at 10 cm. and 0.2°C at 100 cm.

The mean daily actual sunshine duration was the same as last August. The mean daily values of wind speed at 1.5 m. and pan evaporation were lower than the corresponding values of last August by 0.3m/sec. and 0.55 mm. respectively.

BAHTIM — AUGUST 1971

This month was nearly the same as August 1970 as regards the mean daily values of air temperature and relative humidity.

The month was intervened by three light heat waves on the 6th, 10th and 29th. Otherwise mild summer weather prevailed. The first heat wave yielded the highest maximum air temperature for the month (37.0°C). The last heat wave yielded the lowest relative humidity (26%).

The extreme maximum soil temperatures were higher than the corresponding values of last August at depths between 2 and 10 cm. with departures between 1.0°C and 1.4°C. At deeper depths between 20 and 100 cm. the extreme soil maxima were lower than last August by 0.3°C to 0.5°C. The extreme minimum soil temperatures were higher than the corresponding values of last August at 2 and 5 cm. depths by 1.0°C to 0.6°C ; and were lower than last August at all depths till 100 cm. by 0.1°C to 0.7°C.

The mean daily values of actual sunshine duration, wind speed at 1.5 m. and pan evaporation were higher than the corresponding values of August 1970 by 0.3 hour, 0.4 m./sec. and 0.31 mm. respectively.

KHARGA — AUGUST 1971

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

The month was characterized by four heat waves in the periods : (3rd-8th), (10th-12th), (15th-22nd) and on the 30th. Otherwise normal summer weather was experienced. The first heat wave yielded the highest maximum air temperature for the month (42.8°C) on the 7th together with the lowest relative humidity (11%).

The extreme maximum soil temperatures were the same as last August at 2, 20 and 50 cm. and higher than last August at 5, 10 and 100 cm, depths with slight departures not exceeding 0.5°C. The extreme minimum soil temperatures were lower than last August at all depths, apart from the 20 cm. depth where the value was the same and the 50 cm. depth where the value was higher than last August ; the departures varied between 0.3°C and 0.7°C.

Th mean daily values of actual sunshine duration, wind speed at 1.5 m. and Pan evaporation, were all lower than the corresponding values of August 1970 by 0.1 hour, 0.9 m./sec. and 0.77 mm. respectively.

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

AUGUST — 1971

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 . .	29.8	21.3	25.6	23.6	27.1	24.0	24.0	24.0	24.0	24.0	24.0	14.0	0.4	0.0	0.0	0.0
Tahrir	34.9	20.6	26.8	23.4	29.4	24.0	24.0	24.0	24.0	24.0	23.7	13.5	7.0	0.4	0.0	0.0
Bahtim	33.6	19.0	25.6	21.7	28.6	24.0	24.0	24.0	24.0	24.0	20.9	11.8	5.8	0.1	0.0	0.0
Kharga . . .	39.7	22.8	32.1	28.5	35.3	24.0	24.0	24.0	24.0	24.0	23.9	20.8	14.6	8.5	0.9	0.0

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

AUGUST — 1971

STATION	Max. Temp. at 1½ metres (°C)				Min. Temp. at 1½ metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
M. Matruh	32.2	10	28.3	3	24.6	27	19.0	24	17.2	24	—	—
Tahrir	37.6	16,29	32.6	24	23.4	14	18.0	25	16.6	25	—	—
Bahtim	37.0	6	31.7	24	21.0	16	16.1	19	15.0	19	—	—
Kharga	42.8	7	36.7	24	27.2	23	19.2	30	16.8	30	—	—

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

AUGUST — 1971

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	554.8	369.0	412.5	89	79	67	40	10	19.3	19.7	25.6	26	12.0	31	7.6	8.77	0.0	0.0	—
Tahrir .	632.9	362.8	411.1	88	70	42	22	29	17.9	15.9	21.3	15	10.0	29	7.3	8.91	0.0	0.0	—
Bahtim .	626.7	347.0	409.9	85	72	45	26	29	17.0	14.8	21.1	15	10.4	29	6.2	8.40	0.0	0.0	—
Kharga	551.8	373.7	403.3	93	23	17	11	7,10	7.9	8.6	13.2	13,28	3.7	30	19.0	17.44	0.0	0.0	—

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

AUGUST — 1971

STATION	Higheat (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	41.4	39.0	31.8	31.0	29.4	26.8	24.5	—	—	—	—	—	—	—	—	—
	L	25.4	24.9	25.1	27.7	27.5	25.6	23.5	—	—	—	—	—	—	—	—	—
Tahrir	H	54.0	49.3	42.8	37.3	33.7	31.7	29.5	28.3	—	—	—	—	—	—	—	—
	L	27.8	27.0	27.6	30.6	31.5	30.7	28.7	27.5	—	—	—	—	—	—	—	—
Bahtim	H	54.3	46.4	41.0	35.1	32.5	30.7	28.0	25.9	—	—	—	—	—	—	—	—
	L	29.7	28.4	29.5	32.1	31.3	29.7	26.9	25.2	—	—	—	—	—	—	—	—
Kharga	H	56.2	49.7	43.6	38.0	35.6	33.6	31.2	29.7	—	—	—	—	—	—	—	—
	L	20.4	25.4	29.2	33.0	34.2	32.7	30.4	29.0	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

AUGUST — 1971

STATION	Wind Speed m/sec at 1½ metres			Days with surface wind speed at (10 metres)							Max. Gust 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. . .	4.5	3.1	5.9	31	27	12	1	1	0	0	31	29
Tahrir	2.1	1.4	2.7	27	5	0	0	0	0	0	25	30
Bahtim	1.8	1.1	2.5	21	2	0	0	0	0	0	18	24
Kharga . . .	2.0	1.8	4.1	31	20	2	1	0	0	0	32	24

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MONTHLY WEATHER REPORT

VOLUME 14 NUMBER 9

SEPTEMBER, 1971

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

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

Orders for publications should be addressed to :

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

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

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

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

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

THE ANNUAL REPORT

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

CLIMATOLOGICAL NORMALS FOR EGYPT

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

METEOROLOGICAL RESEARCH BULLETIN

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

TECHNICAL NOTES

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

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Note : For explanatory notes on the tables please refer to Volume 14, Number 1 (January 1971).

GENERAL SUMMARY OF WEATHER CONDITIONS

SEPTEMBER 1971

Normal autumm intervened with three variant heat waves. Frequent early morning low clouds over Delta and Cairo areas.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather in this month was generally mild and humid in the northern parts, rather hot and moderately humid in the middle parts & markedly hot and dry in the southern parts. The month was intervened with three variant heat waves round the periods (3rd-5th), (12th-13th) & (17th-20th). The first and third heat waves were pronounced in Upper Egypt district ; otherwise the waves were light.

The month was rainless apart from light rain over Mersa Matruh on the 25th.

Early morning low clouds developed frequently over Delta & Cairo areas with few occasions of mist. Light rising dust was reported in several days in few localities mainly in Upper Egypt district.

PRESSURE DISTRIBUTION

The outstanding pressure systems over the surface charts during this month were :

— The Atlantic anticyclone and its extensions over Europe & the Mediterranean.

— Low pressure systems through North Europe and their extensions through Central Europe.

— The complex monsoon low pressure system over the Arabian gulf, Arabia & Sudan.

Over the upper air charts, the most important pressure patterns were the deep upper low pressure systems over North Atlantic & North Urasia ; their extensions through middle latitudes and the upper high pressure belt over the subtropical latitudes.

During this month, the Iraq monsoon trough experienced six westward elongations through Asia Minor & East Mediterranean round the periods (1st-4th), (6th-8th), (11th-13th), (17th-18th), (21st-23rd) & (25th-27th). These elongations were favoured by the transits of low pressure troughs through the Black Sea area and its vicinities yielding loose pressure gradient over East Mediterranean area. The first elongation was associated with a shallow trough over the Western Desert on the 1st which was stationary till the 3rd and filled up on the 4th.

The barometric pressure over Egypt in this month was alternatively affected by the above mentioned six westward elongations of the Iraq monsoon trough, and the subsequent extension of high pressure over East Mediterranean area. It was generally above normal, and showed consecutive oscillations with its minima slightly below normal round the 1st, 8th, 13th 18th & 27th respectively.

SURFACE WIND

Light to moderate Nly and NWly winds prevailed most of this month. Winds freshened during few days in few scattered localities mainly in the Red Sea district. Calm winds were frequent during night and early morning intervals in many scattered localities.

TEMPERATURE

Maximum air temperature showed moderate variability in general above normal during the heat waves which prevailed round the periods (3rd-5th), (12th-13th) & (17th-20th), and was slightly below normal otherwise.

As an exception, maximum air temperature experienced appreciable rises above normal in the peaks of the first and third heat waves in Upper Egypt district.

Maximum air temperature values ranged generally between 28°C & 32°C in the northern parts, between 30°C & 37°C in the middle parts and between 38°C & 43°C in the southern parts.

The absolute maximum air temperature for Egypt in this month was 44.4°C reported at Luxor on the 19th.

Minimum air temperature oscillated slightly round normal in general. As an exception, it was moderately above normal in extreme Upper Egypt in the period (17th-25th).

Minimum air temperature values ranged most of the month between 17°C & 22°C in the northern and middle parts and between 20°C & 26°C in the southern parts.

The absolute minimum air temperature for Egypt this month was 13.0°C reported at Bahtim on the 26th.

PRECIPITATION

This month was rainless apart from light rain over Mersa Matruh on the 25th.

Cairo, July 1972

Chairman (M. F. TAHA)

Board of Directors

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

SEPTEMBER — 1971

STATION	Atmospheric Pressure (mbs) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation mms. Mean
			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	1014.5	+0.7	29.0	—0.3	20.3	+0.1	24.6	24.4	—0.4	19.2	—0.9	59	—4	—	—	—	8.8
Mersa Matruh (A)	1014.8	+1.1	28.4	—0.2	19.8	+0.2	24.2	24.1	—0.1	20.0	0.0	67	0	320.5	371.5	86	8.6
Alexandria . .(A)	1014.2	+1.6	29.1	—0.4	20.8	—0.4	25.0	24.8	—1.2	20.6	—0.6	67	—1	306.6	370.8	83	6.3
Port Said . .(A)	1011.9	0.0	29.9	+0.7	21.7	—2.1	25.8	25.1	—1.0	21.2	—0.9	69	0	324.3	370.8	87	5.1
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1013.4	+1.5	31.1	—1.3	17.3	—0.3	24.2	23.5	—1.0	19.6	—0.2	67	+4	322.0	370.3	87	3.7
Cairo . . . .(A)	1013.0	+0.4	32.3	0.0	20.2	+0.3	26.2	25.7	+0.2	20.1	—0.1	59	+1	—	—	—	12.9
Fayoum	—	—	34.1	+0.4	19.3	—0.3	26.7	26.1	—0.3	20.2	+0.5	56	+5	—	—	—	7.7
Minya . . . .(A)	1011.5	+0.5	34.0	+0.6	18.5	—0.1	26.2	25.9	+0.3	19.3	—0.3	51	—4	333.0	369.7	90	12.3
Assyout . . .(A)	1010.0	—0.4	34.4	—0.5	20.0	—0.1	27.2	26.8	—0.7	18.6	+0.1	42	+3	—	—	—	16.0
Luxor . . . .(A)	1008.7	+0.4	39.6	+1.3	20.8	—0.6	30.2	30.1	+0.1	19.7	+0.3	34	+2	—	—	—	12.0
Aswan . . . .(A)	1008.6	+0.6	40.1	+0.9	23.2	+1.1	31.6	31.4	+0.6	18.1	+0.9	21	+2	—	—	—	27.2
Siwa	1014.1	+0.7	34.7	—0.2	19.2	+0.9	27.0	27.0	+0.1	17.8	—0.7	36	—5	323.0	372.8	87	12.7
Bahariya	1012.8	+0.9	35.1	+1.1	18.9	+0.1	27.0	26.3	—0.3	17.9	—0.7	40	—3	—	—	—	12.9
Farafra	1013.0	—0.2	33.8	—0.6	18.2	—0.7	26.0	26.1	—0.6	17.2	+0.7	37	+6	—	—	—	15.7
Dakhla	1012.4	+2.2	34.9	—0.7	19.7	—0.6	27.3	27.2	—0.8	17.2	0.0	32	+4	—	—	—	20.3
Kharga	1010.7	+0.7	36.7	+0.1	22.2	+0 9	29.4	29.6	+1.0	17.6	—0.3	29	—3	330.2	369.3	89	19.1
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1009.0	+1.0	32.0	+1.2	24.0	+0.9	28.0	28.2	+0.4	21.1	+0.1	51	—1	330.3	369.8	89	15.4
Ouseir	1008.5	+0.3	31.0	—0.9	25.4	+0.2	28.2	28.6	+0.7	21.6	+0.4	52	—1	—	—	—	17.0

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURE

SEPTEMBER — 1971

Station	Maximum Temperature °C									Grass Min. Temp.		Minimum Temperature							
	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	38.6	12	25.1	28	30	5	2	0	0	19.8	—	25.0	4	16.6	28	0	0	0	0
Mersa Matruh . .	32.6	5	25.7	27	30	5	0	0	0	18.2	—	23.0	8	16.5	25	0	0	0	0
Alexandria . . (A)	31.8	5	26.8	28,29	30	10	0	0	0	18.9	—	23.2	15	15.0	30	0	0	0	0
Port Said . . (A)	31.6	2,19	28.2	30	30	15	0	0	0	21.3	—	23.8	1	19.5	30	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	34.0	5	28.4	25	30	20	0	0	0	—	—	19.7	1,14,19	14 0	30	0	0	0	0
Cairo . . . . (A)	35.9	5	28.8	26,27	30	25	4	0	0	—	—	23.8	5	16.4	26	0	0	0	0
Fayoum	37.4	4·5	30.7	26,27	30	30	10	0	0	—	—	22.2	1	16.5	28	0	0	0	0
Minya	38.8	4	30.2	27	30	30	10	0	0	17.3	—	21.2	20	15.6	26	0	0	0	0
Assyout. . . . (A)	39.2	5	30.0	28	30	30	15	0	0	17.2	—	23.6	6	16.8	28	0	0	0	0
Luxor . . . . (A)	44.4	19	36.4	28	30	30	30	9	0	15.8	—	25.1	20	18.2	27	0	0	0	0
Aswan . . . . (A)	44.1	19	38.0	27	30	30	30	12	0	—	—	26.4	20	19.4	28	0	0	0	0
Siwa	39.3	2	29.3	26	30	27	16	0	0	17.4	—	24.2	3	14.0	29	0	0	0	0
Bahariya	39.4	4	29.4	27	30	27	10	0	0	17.9	—	22.4	3,4	13.7	30	0	0	0	0
Farafra	39.2	4	29.3	28	30	25	12	0	0	18.4	—	23.1	6	15.0	26	0	0	0	0
Dakhla	38.8	5	30.8	27,28	30	30	15	0	0	19.5	—	24.5	7	14.8	18	0	0	0	0
Kharga	41.4	4	31.9	28	30	30	21	2	0	20.7	—	26.8	9	17.4	27	0	0	0	0
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	34.7	6	30.1	26	30	30	0	0	0	—	—	25.6	20	22.5	18	0	0	0	0
Quseir	33.0	6,7	29.4	29	30	22	0	0	0	22.7	—	26.9	6·9,20	23.6	26·27,29	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

SEPTEMBER — 1971

STATION	Maen Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	D. From Normal	Max. Fall in one day		Number of Days with Amount of Rain						
								Amouut	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25	≥50
Sallum	1.6	1.7	2.7	1.3	1.9	0.0	— 0.7	0.0	—	0	0	0	0	0	0	0
Mersa Matruh (A)	1.0	2.4	1.9	1.9	1.9	Tr.	— 1.0	Tr.	25	1	0	1	0	0	0	0
Alexandria (A)	3.5	3.0	2.8	2.6	3.0	0.0	— 0.5	0.0	—	0	0	0	0	0	0	0
Port Said (A)	1.2	2.0	0.7	0.7	1.2	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghezza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.2	1.5	1.0	0.0	0.9	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Cairo (A)	0.9	2.0	0.5	0.1	1.0	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.6	0.3	0.0	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Minya (A)	0.0	0.7	0.1	0.0	0.1	0.9	—0.1	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.2	0.0	0.0	0.0	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.0	0.4	0.1	0.1	0.2	0.0	—0.1	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.1	1.0	0.6	0.6	0.6	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Siwa	1.5	0.1	1.6	0.2	0.8	0.0	—0.1	0.0	—	0	0	0	0	0	0	0
Bhariya	0.0	1.2	0.3	0.1	0.3	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.1	0.0	0.0	—	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.3	0.4	0.2	0.2	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.1	0.2	0.6	0.6	0.3	0.0	0.0	0.0	—	0	0	0	0	0	0	0
Quseir	0.2	0.3	0.2	0.6	0.3	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0

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

SEPTEMBER — 1971

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											
Sallulm	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0
Mersa Matruh (A)	0	0	0	0	0	0	0	0	0	0	3	0	0	16	0
Alexandria (A)	0	0	0	0	0	0	2	3	1	0	0	0	0	10	0
Port Said (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	8	0	0	0	0	0	0	28	0
Cairo (A)	0	0	0	0	0	0	11	1	3	0	1	0	0	27	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	7	0	3	0	2	0	0	30	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Luxor (A)	0	0	0	0	0	0	0	0	2	0	5	0	0	30	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	17	1	0	27	0
Siwa	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Farafra	0	0	0	0	0	0	0	0	1	0	0	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	1	0	2	0	0	30	0
Kharga	0	0	0	0	0	0	0	0	0	0	6	0	0	28	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	7	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 OCCURENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

SEPTEMBER — 1971

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 direction
Sallum	8	0	0	1—10	41	135	92	59	7	6	0	0	1	39	153	133	666
				11—27	3	5	18	4	0	0	0	0	0	2	7	7	46
				28—47	0	0	0	0	0	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**	**140**	**110**	**63**	**7**	**6**	**0**	**0**	**1**	**41**	**160**	**140**	**712**
Mersa Matruh . (A)	2	0	0	1—10	102	22	6	19	12	15	8	13	64	62	23	85	431
				1—27	89	20	24	6	0	0	0	2	5	3	2	136	287
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**191**	**42**	**30**	**25**	**12**	**15**	**8**	**15**	**69**	**65**	**25**	**221**	**718**
Alexandria. . . (A)	0	0	6	1—10	93	20	12	18	15	7	21	19	4	12	67	323	611
				11—27	31	4	0	0	0	0	0	1	0	2	5	60	103
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**124**	**24**	**12**	**18**	**15**	**7**	**21**	**20**	**4**	**14**	**72**	**383**	**714**
Port Said . . . (A)	24	0	0	1—10	249	39	11	1	1	0	2	0	1	39	50	281	674
				11—27	10	0	0	0	0	0	0	0	0	0	1	11	22
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**259**	**39**	**11**	**1**	**1**	**0**	**2**	**0**	**1**	**39**	**51**	**292**	**696**
Tanta	33	0	0	1—10	124	66	23	22	2	1	4	8	39	70	88	190	637
				11—27	31	2	0	0	0	0	0	0	0	0	0	17	50
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**155**	**68**	**23**	**22**	**2**	**1**	**4**	**8**	**39**	**70**	**88**	**207**	**687**
Cairo . . . . . (A)	87	1	3	1—10	138	112	27	15	3	0	0	0	0	0	14	83	402
				11—27	108	77	11	13	1	0	0	0	0	0	0	17	227
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**246**	**189**	**48**	**28**	**4**	**0**	**0**	**0**	**0**	**0**	**14**	**100**	**629**
Fayoum	0	0	0	1—10	374	259	19	0	0	0	1	0	1	0	1	42	697
				11—27	0	20	1	0	0	0	0	0	0	0	0	2	23
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**374**	**279**	**20**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**44**	**720**
Minya . . . . . (A)	1	0	0	1—10	419	40	2	1	0	0	0	1	0	0	4	26	493
				11—27	221	1	3	0	0	0	0	0	0	0	0	1	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	**640**	**41**	**5**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	**27**	**719**

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

SEPTEMBER — 1971

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
Asyout . . . . (A)	3	0	0	1—10	24	4	0	1	4	7	2	0	0	111	224	133	510
				11—27	43	1	0	0	0	0	0	0	0	1	35	127	207
				28—47	0	0	0	0	0	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**	**5**	**0**	**1**	**4**	**7**	**2**	**0**	**0**	**112**	**259**	**260**	**717**
Luxor . . . . (A)	3	0	0	1—10	17	10	4	20	14	58	213	48	57	117	109	21	688
				11—27	1	0	0	0	0	0	0	0	0	0	26	2	29
				28—27	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**18**	**10**	**4**	**20**	**14**	**58**	**213**	**48**	**57**	**117**	**135**	**23**	**717**
Aswan . . . . (A)	6	2	0	1—10	142	90	3	0	0	0	0	0	0	2	13	175	425
				11—27	80	63	0	0	0	0	0	0	0	0	17	127	287
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**222**	**153**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**30**	**302**	**712**
Siwa	50	31	12	1—10	86	67	103	75	24	17	9	3	12	38	73	86	593
				11—27	4	11	6	0	0	0	0	0	0	2	3	8	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	**90**	**78**	**109**	**75**	**24**	**17**	**9**	**3**	**12**	**40**	**76**	**94**	**627**
[illegible]	7	0	0	1—10	89	37	9	3	2	6	15	14	35	83	168	193	654
				11—27	13	8	0	0	0	0	0	0	0	0	0	38	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	**102**	**45**	**9**	**3**	**2**	**6**	**15**	**14**	**35**	**83**	**168**	**231**	**713**
Kharga	1	9	0	1—10	169	52	11	1	0	0	0	1	0	5	20	187	446
				11—27	172	21	0	0	0	0	0	0	0	0	0	71	264
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**341**	**73**	**11**	**1**	**0**	**0**	**0**	**1**	**0**	**5**	**20**	**258**	**710**
Hurghada	2	0	0	1—10	6	8	2	0	0	0	0	0	0	0	9	53	78
				11—27	298	68	0	0	0	1	0	0	0	0	13	227	607
				28—47	12	0	0	0	0	0	0	0	0	0	0	21	33
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**316**	**76**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**22**	**301**	**718**
Quseir	10	1	0	1—10	175	113	9	2	0	0	0	0	1	5	11	94	410
				11—27	94	170	4	0	0	0	0	0	0	0	0	31	299
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**269**	**283**	**13**	**2**	**0**	**0**	**0**	**0**	**1**	**5**	**11**	**125**	**709**

UPPER AIR CLIMATOLOGICAL DATA

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

SEPTEMBER — 1971

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 0000 U.T.	Surface	25	*1013m.b.	*1017m.b.	*1009m.b.	25	21.8	24.4	17.4	25	17.0
	1000	25	141	175	106	25	21.9	24.8	19.0	25	17.1
	850	25	1540	1574	1495	25	16.4	22.4	8.3	25	3.5
	700	25	3169	3224	3135	25	8.0	11.1	3.8	25	— 7.4
	600	25	4425	4484	4374	25	0.5	3.6	— 2.9	25	—16.8
	500	24	5860	5934	5796	24	— 9.3	— 5.5	—13.0	23	—25.5
	400	22	7592	7634	7456	22	—21.3	—18.9	—24.5	22	—35.9
	300	19	9614	9716	9506	19	—35.6	—31.6	—39.7	19	—48.5
	250	19	10859	10973	10730	19	—44.0	—40.7	—49.0	19	—56.2
	200	18	12332	12445	12178	18	—52.5	—49.9	—55.7	18	—62.9
	150	18	14148	14285	14043	18	—62.6	—60.9	—65.1	—	—
	100	18	16601	16690	16478	18	—68.5	—65.4	—73.7	—	—
	70	16	18773	18978	18638	16	—64.9	—61.3	—69.5	—	—
	60	13	19730	19820	19600	13	—62.0	—53.0	—66.0	—	—
	50	13	20835	20929	20711	13	—59.3	—55.0	—63.3	—	—
	40	9	22297	22400	22150	9	—56.5	—55.1	—58.0	—	—
	30	9	24070	24156	23941	9	—53.1	—52.0	—54.5	—	—
	20	4	26580	26796	26209	4	—49.0	—47.8	—50.1	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	30	*997m.b.	*1002m.b.	*992m.b.	30	22.1	26.2	19.4	30	17.1
	1000	30	110	157	70	2	21.6	23.0	20.2	2	16.8
	850	30	1515	1542	1471	29	18.3	21.7	12.0	29	4.1
	700	30	3156	3185	3104	30	10.1	11.9	5.4	30	— 8.5
	600	30	4419	4452	4366	30	2.0	6.8	— 2.1	30	—15.9
	500	30	5865	5910	5810	30	— 7.8	— 4.1	—10.7	30	—25.0
	400	29	7563	7637	7497	28	—19.5	—14.7	—23.5	28	—34.7
	300	28	9641	9747	9565	28	—34.1	—30.4	—38.1	28	—47.4
	250	27	10898	11013	10809	27	—42.6	—39.4	—45.0	27	—54.5
	200	26	12370	12485	12270	26	—53·2	—50.3	—57.9	25	—63.6
	150	25	14181	14291	14074	25	—64.3	—61.9	—66.5	—	—
	100	21	16600	16720	16507	21	—72.4	—69.0	—77.6	—	—
	70	20	18743	18963	18618	20	—66.6	—63.7	—72.1	—	—
	60	14	19734	19850	19560	14	—63.8	—61.9	—67.1	—	—
	50	14	20818	20915	20647	14	—58.6	—57.2	—63.9	—	—
	40	11	22304	22430	22090	11	—58.2	—56.7	—60.2	—	—
	30	11	24026	24135	23847	11	—55.5	—52.5	—58.5	—	—
	20	4	26647	26748	26447	4	—51.5	—49.4	—53.4	—	—
	10	1	31314	—	—	1	—41.9	—	—	—	—
Aswan 0000 U.T.	Surface	29	*987m.b.	*990m.b.	*985m.b.	29	26.6	29.5	23.0	29	5.4
	1000	29	83	105	60	—	—	—	—	—	—
	850	29	1520	1548	1490	29	25.1	28.5	21.3	29	— 1.2
	700	29	3205	3221	3148	29	12.5	14.8	9.3	29	— 9.6
	600	29	4454	4491	4420	29	1.5	7.7	— 3.0	29	—14.0
	500	29	5873	5933	5857	29	— 8.2	— 3.2	—12.7	29	—23.8
	400	28	7601	7645	7538	28	—17.2	—13.3	—21.1	28	—36.7
	300	27	9695	9769	9604	27	—30.9	—29.5	—35.8	27	—49.1
	250	27	10958	11049	10857	27	—41.6	—37.9	—44.9	26	—57.0
	200	27	12437	12551	12327	27	—52.7	—49.2	—54.9	27	—66.1
	150	25	14244	14381	14116	24	—65.3	—63.1	—67.3	—	—
	100	21	16638	16781	16516	21	—76.0	—72.7	—80.1	—	—
	70	12	18727	18788	18629	12	—68.4	—62.6	—75.6	—	—
	60	10	19589	19720	19520	10	—65.3	—60.2	—72.5	—	—
	50	9	20782	20863	20686	9	—62.3	—58.7	—69.2	—	—
	40	7	22288	22375	22140	7	—59.4	—56.5	—65.2	—	—
	30	7	23966	24064	23830	7	—56.3	—52.3	—60.7	—	—
	20	3	26629	26676	26600	3	—47.5	—43.1	—50.0	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

UPPER AIR CLIMATOLOGICAL DATA

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

SEPTEMBER — 1971

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	25	*1013m.b.	*1016m.b.	*1010m.b.	25	26.3	29.5	23.5	25	18.3
	1000	25	144	169	115	24	25.0	28.4	21.8	24	16.6
	850	25	1548	1568	1518	25	16.5	21.2	9.8	25	2.6
	700	24	3171	3207	3055	24	7.5	11.0	4.0	24	— 8.2
	600	24	4426	4473	4298	24	0.3	3.6	— 2.6	23	—15.9
	500	21	5860	5918	5733	21	— 9.0	— 5.2	—11.4	21	—24.8
	400	21	7550	7635	7433	21	—20.9	—15.9	—24.3	21	—35.5
	300	21	9615	9731	9521	21	—35.3	—31.0	—39.5	21	—48.1
	250	20	10860	10995	10747	20	—43.5	—39.3	—48.6	20	—55.3
	200	19	12336	12478	12209	19	—52.1	—49.5	—55.0	19	—62.7
	150	18	14158	14296	14029	18	—61.7	—57.1	—64.0	1	—71.8
	100	17	16618	16740	16496	17	—68.4	—64.4	—72.1	—	—
	70	14	18766	18838	18665	14	—63.6	—61.6	—66.9	—	—
	60	13	19747	19835	19630	13	—61.3	—58.3	—64.1	—	—
	50	13	20852	20942	20764	13	—58.5	—55.9	—63.8	—	—
	40	12	22339	22420	22240	12	—55.2	—51.8	—60.4	—	—
	30	12	24119	24263	23990	12	—51.0	—46.9	—59.2	—	—
	20	8	26799	26888	26616	8	—46.6	—44.9	—48.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	30	*996m.b.	*1000m.b.	*993m.b	30	31.5	35.8	27.2	30	12.3
	1000	29	104	140	77	1	30.6	—	—	1	13.2
	850	29	1530	1556	1502	29	19.6	24.0	14.9	29	2.7
	700	29	3177	3209	3148	28	11.0	13.4	6.5	28	—12.4
	600	27	4447	4481	4404	27	3.0	9.1	— 1.8	27	—19.3
	500	26	5895	5950	5855	26	— 6.9	— 0.9	—10.3	26	—27.5
	400	26	7599	7691	7551	26	—18.1	—13.0	—23.9	26	—36.6
	300	24	9691	9818	9620	24	—32.4	—27.0	—36.9	24	—48.4
	250	23	10959	11098	10874	23	—40.9	—37.0	—43.7	23	—55.5
	200	23	12443	12593	12348	23	—51.2	—48.5	—54.0	23	—64.1
	150	23	14265	14423	14156	23	—62.9	—61.0	—65.0	—	—
	100	23	16707	16867	16592	23	—70.4	—61.5	—74.8	—	—
	70	21	18891	18997	18741	21	—65.2	—60.7	—71.0	—	—
	60	20	19834	19970	19720	20	—61.8	—58.3	—65.0	—	—
	50	20	20931	21097	20824	20	—58.3	—53.4	—65.1	—	—
	40	17	22416	22580	22330	17	—55.1	—50.9	—63.2	—	—
	30	13	24189	24390	24094	13	—51.8	—46.8	—61.9	—	—
	20	9	26863	27110	26720	9	—45.7	—42.5	—48.7	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan (A) 1200 U.T.	Surface	30	*987mb.	*989mb.	*985mb.	30	38.4	42.0	35.0	30	6.8
	1000	30	72	93	54	—	—	—	—	—	—
	850	30	1528	1545	1504	30	25.6	31.0	21.4	30	2.6
	700	29	3196	3233	3161	29	13.2	16.0	10.0	29	—11.8
	600	29	4468	4509	4434	29	2.8	6.9	— 0.8	29	—17.7
	500	29	5915	5950	5885	29	— 7.3	— 1.5	—13.6	29	—26.1
	400	27	7628	7690	7560	27	—16.0	—12.2	—21.3	27	—37.6
	300	28	9735	9827	9648	28	—30.8	—28.1	—34.2	28	—49.3
	250	28	11003	11109	10905	28	—40.6	—37.8	—42.8	28	—57.3
	200	28	12488	12609	12381	28	—51.8	—48.9	—54.5	28	—61.4
	150	28	14300	14438	14182	28	—64.3	—61.5	—66.7	—	—
	100	26	16718	16868	16590	26	—73.8	—70.4	—77.9	—	—
	70	21	18818	18968	18700	21	—68.2	—64.2	—75.4	—	—
	60	16	19826	19940	19750	16	—63.8	—61.4	—66.4	—	—
	50	16	20910	21031	20821	16	—59.2	—56.5	—63.0	—	—
	40	14	22410	22540	22305	14	—55.2	—52.7	—58.2	—	—
	30	13	24183	24321	24081	13	—50.6	—47.9	—53.4	—	—
	20	10	26880	27025	26749	10	—44.5	—42.4	—47.4	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

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

SEPTEMBER — 1971

	Station	Freezing Level									Frist Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	4480 (25)	598 (25)	—16.4 (25)	5170	548	— 9.5	3900	594	—20.2	15497 (18)	123 (18)	—68.3 (18)	17550	84	—68.1	14330	114	—65.0	13010	—	240	90
	Helwan . . .	4782 (30)	578 (30)	—17.5 (30)	5780	574	—26.9	4020	628	—17.7	16078 (19)	112 (19)	—72.3 (19)	17160	90	—73.2	14860	133	—66.8	15680	115	240	101
	Aswan . . (A)	4706 (29)	583 (29)	—15.3 (29)	5460	530	—23.4	4200	617	—19.1	16156 (13)	110 (13)	—70.2 (13)	17300	90	—74.8	15100	129	—73.2	900	910	350	39
1200 U.T		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	4469 (24)	597 (24)	—16.4 (24)	5060	560	— 9.9	4030	620	—13.4	15828 (15)	115 (15)	—69.0 (15)	16711	100	—71.7	14400	141	—65.3	9951	285	265	98
	Helwan . . .	4897 (26)	569 (26)	—21.6 (26)	5810	509	—25.0	4270	613	—12.8	15956 (22)	115 (22)	—70.6 (22)	16940	96	—75.1	14650	140	—68.0	13210	172	265	86
	Aswan . . (A)	4860 (29)	576 (29)	—19.7 (29)	5650	520	—25.0	4270	615	—19.0	16337 (19)	108 (19)	—74.5 (19)	18040	82	—76.8	15100	129	—72.8	4740	582	110	53

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) — SEPTEMBER 1971

Time	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360°)																								Number of Calm winds	Total Number of Observations (T N)	Mean Scalar Wind Speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
0000 U.T.	Surface	1	14	1	8	0	—	0	—	0	—	1	1	0	—	1	5	3	5	2	8	8	8	8	8	0	25	7
	1000	3	13	6	14	0	—	0	—	0	—	2	12	0	—	0	—	3	9	1	11	1	13	4	10	0	20	12
	850	5	14	2	12	6	16	0	—	0	—	0	—	0	—	2	10	1	9	0	—	2	12	2	16	0	20	14
	700	1	8	3	9	2	14	0	—	0	—	0	—	0	—	0	—	2	16	1	26	3	11	3	14	0	15	13
	600	1	19	2	12	1	18	0	—	0	—	0	—	0	—	1	14	1	17	1	15	3	18	3	25	0	13	18
	500	0	—	0	—	0	—	0	—	1	7	0	—	0	—	0	—	1	19	3	20	5	20	3	16	0	13	18
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	23	3	28	5	24	0	—	0	11	25
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	53	2	34	2	22	0	9	42
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	51	5	61	3	40	0	—	0	9	53
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	68	4	62	3	48	0	—	0	9	59
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	44	4	53	0	—	0	—	0	7	49
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	2	14	1	15	0	—	0	4	17
	70	0	—	1	3	0	—	0	—	0	—	0	—	0	—	1	12	1	4	0	—	0	—	0	—	0	3	6
	60	0	—	0	—	0	—	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	13
	50	0	—	0	—	0	—	0	—	1	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	19
	40	0	—	0	—	0	—	0	—	1	29	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	29
	30	0	—	0	—	0	—	0	—	1	37	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	37
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	4	14	4	13	1	17	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	16	11	12	0	25	13
	1000	6	15	7	16	2	11	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	19	7	17	0	25	16
	850	5	11	2	19	1	25	0	—	0	—	1	14	0	—	2	10	1	26	2	17	2	12	9	12	0	25	14
	700	2	16	1	12	1	21	1	21	0	—	0	—	1	17	0	—	3	16	4	16	6	16	4	12	0	23	17
	600	1	8	1	10	1	17	0	—	0	—	0	—	0	—	1	14	5	21	5	13	6	19	2	9	0	22	16
	500	1	7	0	—	0	—	0	—	0	—	0	—	0	—	2	35	3	29	9	22	4	21	1	11	0	20	23
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	49	3	29	10	30	4	22	0	—	0	20	31
	300	1	14	0	—	0	—	0	—	0	—	0	—	0	—	2	56	3	31	9	56	4	51	0	—	0	19	49
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	64	5	49	9	60	2	50	0	—	0	18	56
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	54	4	50	8	68	1	45	0	—	0	16	58
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	49	2	32	8	48	1	38	0	—	0	14	45
	100	0	—	0	—	0	—	0	—	0	—	0	—	2	22	2	21	3	26	5	17	0	—	1	14	0	13	20
	70	0	—	0	—	2	8	3	18	2	15	2	11	0	—	1	13	0	—	0	—	0	—	0	—	0	10	14
	60	1	18	0	—	1	12	2	14	3	6	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	9	12
	50	0	—	0	—	3	10	1	15	3	12	0	—	1	17	0	—	0	—	0	—	0	—	0	—	0	8	12
	40	0	—	0	—	1	24	4	11	1	15	0	—	1	30	0	—	0	—	0	—	0	—	0	—	0	7	16
	30	0	—	0	—	1	17	4	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	11
	20	0	—	0	—	1	21	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	21
	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.**

HELWAN — SEPTEMBER 1971

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	15	8	5	9	3	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	4	6	2	30	8
	1000	1	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	2	6
	850	11	11	6	11	0	—	2	8	0	—	0	—	0	—	2	8	1	9	2	11	2	12	4	12	0	30	11
	700	4	11	1	17	2	8	0	—	0	—	0	—	2	16	3	10	4	8	5	8	4	7	5	8	0	30	9
	600	1	5	1	6	1	2	0	—	0	—	0	—	0	—	6	12	11	12	4	9	5	13	1	5	0	30	11
	500	1	6	0	—	1	3	0	—	0	—	0	—	2	16	8	13	9	12	5	13	3	10	0	—	0	29	12
	400	0	—	2	4	0	—	0	—	0	—	0	—	0	—	4	20	17	16	4	19	1	9	0	—	1	29	16
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	26	17	33	4	18	2	14	0	—	0	27	28
	250	0	—	0	—	0	—	0	—	0	—	0	—	1	45	6	30	16	34	3	26	1	19	0	—	0	27	32
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	36	12	33	5	34	0	—	0	—	0	25	34
	150	0	—	0	—	0	—	0	—	1	37	0	—	0	—	8	34	13	27	2	47	0	—	0	—	0	24	32
	100	0	—	0	—	0	—	1	19	1	18	0	—	2	16	5	32	6	19	1	23	1	22	0	—	0	17	23
	70	0	—	0	—	1	10	4	12	1	16	1	9	3	23	0	—	1	40	0	—	0	—	0	—	0	11	17
	60	1	20	0	—	1	14	3	22	1	14	1	19	1	14	1	25	0	—	0	—	0	—	0	—	0	9	19
	50	0	—	0	—	2	16	3	20	1	30	1	15	2	14	0	—	0	—	0	—	0	—	0	—	0	9	18
	40	0	—	0	—	1	26	4	18	1	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	6	18
	30	0	—	0	—	0	—	3	22	0	—	1	28	0	—	0	—	0	—	0	—	0	—	0	—	0	4	23
	20	0	—	0	—	0	—	1	16	1	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	2	20
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	13	10	3	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	9	0	—	12	10	0	30	10
	1000	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	0	1	12
	850	9	9	7	11	4	6	0	—	0	—	0	—	0	—	2	12	1	13	0	—	2	13	4	9	0	29	10
	700	2	10	0	—	0	—	1	7	1	3	1	8	2	12	8	17	4	8	4	12	1	3	4	13	0	28	12
	600	0	—	1	3	1	4	0	—	0	—	0	—	3	15	8	16	5	10	4	11	1	21	2	9	0	26	12
	500	0	—	1	2	1	2	0	—	1	6	0	—	1	8	8	12	6	14	6	11	2	15	0	—	0	26	11
	400	1	11	0	—	1	10	1	3	0	—	0	—	0	—	10	20	5	24	6	19	0	—	1	10	0	25	19
	300	1	9	0	—	0	—	0	—	0	—	0	—	0	—	5	28	12	27	4	43	0	—	1	2	0	23	28
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	22	12	33	6	34	0	—	1	14	0	23	31
	200	0	—	0	—	0	—	0	—	0	—	0	—	1	18	6	34	9	38	7	30	0	—	0	—	0	23	37
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	26	9	28	6	39	0	—	0	—	0	23	30
	100	0	—	0	—	0	—	0	—	0	—	0	—	5	16	8	21	5	30	2	43	0	—	0	—	0	20	25
	70	2	8	0	—	1	17	3	20	3	13	1	25	3	15	3	32	2	28	0	—	0	—	0	—	0	18	20
	60	0	—	1	10	1	12	6	20	3	19	0	—	1	29	3	17	0	—	0	—	1	40	0	—	0	16	20
	50	0	—	0	—	0	—	9	26	3	11	0	—	1	22	0	—	0	—	0	—	0	—	0	—	0	13	27
	40	0	—	0	—	2	32	3	29	3	20	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	9	26
	30	0	—	0	—	1	10	3	14	1	25	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	16
	20	0	—	1	15	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	15
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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) SEPTEMBER — 1971

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

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

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

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — SEPTEMBER 1971

For the month as a whole the mean daily air temperature and relative humidity were about normal. The month was rainless apart from trace on the 25th.

The prevailing weather was generally mild, intervened with three short warm spells on the 5th, 12th and 17th. The first warm spell yielded the highest maximum air temperature for the month (32.6°C). The last warm spell yielded the lowest relative humidity (33%).

The extreme maximum soil temperature at 2 cm. depth was the same as last year. At other depths between 5 and 100 cm. the extreme soil maxima showed irregular departures from the corresponding values of last year not exceeding 0.9°C. The extreme minimum soil temperature was higher by 1.0°C than last year at 2 cm. depth, and was lower than last year at all depths between 5 and 100 cm. with departures between 0.2°C and 0.8°C.

The mean daily actual sunshine duration was higher by only 0.1 hour than September 1970. The mean daily wind speed at 1.5 m. was the same as September 1970.

TAHRIR — SEPTEMBER 1971

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

The month was characterized by three heat waves in the periods (4th-6th), (12th & 13th), (17th-19th). The first heat wave yielded the highest maximum air temperature for the month (36.1°C) on the 5th. The last heat wave yielded the lowest relative humidity (33%) on the 18th. Apart from the three heat waves mild weather prevailed.

The extreme maximum soil temperatures were higher than the corresponding values of last year at all depths between 2 and 100 cm. with departures between 2.0°C at 5 cm. and 0.4°C at 20 cm.

The extreme minimum soil temperatures were slightly lower than the corresponding values of last year at all depths, apart from the 5 cm. depth where the value was the same as last year and the 20 cm. depth where the value was slightly higher than last year ; the departures did not exceed 0.5°C.

The mean daily values of actual sunshine duration, wind speed at 1.5 m. and pan evaporation were lower than the corresponding values of September 1970 by 0.1 hour, 0.1 m./sec. and 0.24 mm. respectively.

BAHTIM — SEPTEMBER 1971

For the month as whole, the mean daily air temperature and relative humidity were about the corresponding values of last year.

The prevailing weather was generally mild with subnormal temperatures apart from three light heat waves on the 5th, 13th, (18th-19th). The first heat wave yielded the highest maximum air temperature for the month (34.5°C).

The extreme maximum soil temperatures were higher than the corresponding values of last year at shallow depths between 2 and 10 cm. with departures between 2.4°C and 1.9°C. At 20, 50 cm. depths the extreme soil maxima were the same as last year, and at 100 cm. the value was lower by 0.2°C than last year. The extreme minimum soil temperature at 2 cm. depth was higher by 3.0°C than last year. At other depths between 5 and 100 cm. the extreme soil minima showed irregular departures not exceeding 0.9°C from the corresponding values of last year.

The mean daily pan evaporation was lower than last September by 0.68 mm. The mean daily values of wind speed at 1.5 m. and actual sunshine duration were higher than last September by 0.2 m./sec. and 0.2 hour respectively.

KHARGA — SEPTEMBER 1971

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

The month was characterized by four heat waves in the periods (3rd-6th), 8th, (13th-14th) and (18th-20th). The first heat wave yielded the highest maximum air temperature for the month (41.4°C) on the 4th. In the rest of the month, weather was mild with subnormal temperatures in general.

The extreme maximum soil temperatures were higher than the corresponding values of last year at all depths between 2 and 100 cm. withdepartures between 1.6°C at 2 cm. and 0.2°C at 100 cm. The extreme minimum soil temperatures were lower than the corresponding values of last year at all depths with departures between 0.8°C at 2 cm. and 0.2°C at 100 cm.

The mean daily actual sunshine duration was lower than last September by 0.4 hour, the mean daily values of wind speed at 1.5 m. and pan evaporation were higher than last September by 0.3 m/sec. and 0.66 mm. respectively.

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

SEPTEMBER — 1971

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. . .	28.4	19.8	24.1	22.2	26.0	24.0	24.0	24.0	24.0	24.0	22.2	9.1	0.2	0.0	0.0	0.0
Tahrir	32.8	17.6	24.5	20.8	28.3	24.0	24.0	4.0	24.0	24.0	19.2	10.4	3.7	0.0	0.0	0.0
Bahtim	31.9	16.4	23.7	19.6	27.9	24.0	24.0	4.0	24.0	23.1	16.2	9.7	3.4	0.0	0.0	0.0
Kharga	36.7	22.2	29.7	26.8	32.7	24.0	24.0	24.0	24.0	24.0	23.7	19.2	11.0	4.1	0.0	0.0

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

SEPTEMBER — 1971

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. . .	32.6	5	25.7	27	23.0	8	16.5	25	14.8	10	—	—
Tahrir	36.1	5	29.4	27	20.1	1,14	14.0	30	12.1	30	—	—
Bahtim	34.5	5	28.4	27	19.8	1	13.0	26	11.0	26,30	—	—
Kharga	41.4	4	31.9	28	26.8	9	17.4	27	15.0	27	—	—

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

SEPTEMBER — 1971

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	470.8	320.5	371.5	86	69	60	33	17	15.6	16.4	22.6	18	9.7	24	8.6	—	Tr.	Tr.	25
Tahrir . .	561.4	323.2	370.8	87	69	42	33	18	15.4	14.3	20.7	19	11.0	25	6.2	7.84	0	0	—
Bahtim . .	561.4	321.7	370.8	86	69	42	30	30	14.6	14.1	19.7	20	10.5	30	7.0	7.86	0	0	—
Kharga .	512.9	330.2	369.3	89	31	22	12	12	9.1	9.5	15.5	10	4.9	18	19.0	17.48	0	0	—

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

SEPTEMBER — 1971

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	40.0	37.0	33.3	30.4	28.7	26.8	25.3	—	—	—	—	—	—	—	—	—
	L	21.9	21.2	22.4	25.2	26.3	25.8	24.2	—	—	—	—	—	—	—	—	—
Tahrir	H	50.8	46.4	40.0	35.7	32.1	31.3	29.7	28.5	—	—	—	—	—	—	—	—
	L	22.7	22.2	22.9	26.8	28.2	29.1	28.9	28.4	—	—	—	—	—	—	—	—
Bahtim	H	51.7	44.8	39.3	34.1	32.1	30.7	28.4	26.7	—	—	—	—	—	—	—	—
	L	25.9	23.9	25.6	29.3	30.2	30.0	28.0	26.0	—	—	—	—	—	—	—	—
Kharga . . .	H	53.6	47.3	41.3	36.7	34.8	33.4	31.4	30.2	—	—	—	—	—	—	—	—
	L	19.1	23.0	26.0	29.6	31.6	32.2	31.2	29.6	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

SEPTEMBER — 1971

Station	Wind Speed m/sec at $1^1/_2$ metres			Days with surface wind speed at 10 metres							Max. Gust (knots at 10 meters)	
	Mean of the day	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	30 knots	≥35 knots	≥40 knots	value (knots)	Date
Mersa Matruh.	4.0	2.8	5.1	30	24	10	1	0	0	0	29	7.21
Tahrir	1.9	1.1	2.6	30	11	0	0	0	0	0	25	19
Bahtim	2.0	1.2	2.8	22	3	0	0	0	0	0	33	11
Kharga	4.4	3.3	5.5	30	24	11	1	0	0	0	30	10

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Chairman of the Board of Directors

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THE ARAB REPUBLIC OF EGYPT

MONTHLY WEATHER REPORT

VOLUME 14 NUMBER 10

OCTOBER, 1971

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

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968, this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

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 "The Meteorological Institute for Research and Training" and the Operational Divisions of the Meteorological Authority.

TECHNICAL NOTES

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

THE ARAB REPUBLIC OF EGYPT

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THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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GENERAL SUMMARY OF WEATHER CONDITIONS

OCTOBER 1971

Remarkably hot weather in the northern and middle parts most of the first week and in the southern parts most of the first three weeks, mild otherwise.

GENERAL DESCRIPTION OF WEATHER

This month began with markedly hot weather which prevailed in the northern and middle part most of the first week and in the southern parts most of the first three weeks. The break down of this hot weather was associated with appreciable fall in temperature and mild weather prevailed during the rest part of the month.

Rain was deficient and subnormal during this month and was confined to the Mediterranean district, where light rain was reported in the period (23rd-28th).

Light rising sand occurred for few days in few scattered localities, mainly in Upper Egypt and the Western Desert districts.

PRESSURE DISTRIBUTION

The most outstanding pressure patterns over the synoptic surface charts during this month were :

— The Atlantic anticyclone and its extensions over Europe and the Mediterranean.

— The Siberian anticyclone.

— Deep low pressure systems through north Europe and their extensions over Central Europe.

— The Sudan monsoon trough and its northward elongations.

Over the 700 & 500 mb. levels, the significant pressure patterns can be summarized in :

— The deep upper low pressure systems over North Atlantic & North Urasia.

— The secondary upper lows or troughs through middle latitudes passing through East Mediterranean on the 8th, 20th & 25th.

— The high pressure belt south of latitude 30°N.

It is worthy to mention that the Atlantic anticyclone eastward ridge established over Europe and the Mediterranean most days of this month.

East Mediterranean area was subject to three troughs of low pressure during this month round the periods (7th-8th), (23rd-24th) & (28th-29th).

These low pressure troughs associated the transit of deep low pressure systems through the Black Sea area.

The Sudan monsoon trough showed consecutive northward elongations, in the period (1st-2nd) and during the period (10th-21st) but with no pronounced deepening.

The barometric pressure over Egypt in this month was generally above normal, but it experienced moderate falls during the transit of low pressure troughs over East Mediterranean.

SURFACE WIND

Light to moderate Nly and NWly winds prevailed most days of the month. Winds freshened during several days in few scattered localities mainly in the Red Sea district. Calms were frequent in scattered localities during night and early morning intervals.

TEMPERATURE

Maximum air temperature experienced pronounced rise in temperature above normal in the northern and middle parts most of the first week, and in the southern parts most of the first three weeks. Otherwise, it was moderately below normal in general. Maximum air temperature values ranged most of the month between 26°C & 35°C in the northern and middle parts and between 32°C & 40°C in the southern parts.

The absolute maximum air temperature for Egypt this month was 42.4°C reported at Aswan on the 4th.

Minimum air temperature oscillated to a moderate extent round normal. Its values ranged generally between 13°C & 20°C in the northern and middle parts ; and between 15°C & 23°C in th southern parts. It is worthy to mention that minimum air temperature attained a record (11.2°C) at Alexandria on the 28th, 29th & 30th.

The absolute minimum air temperature for Egypt this month was 8.4°C reported at Beni Suef on the 31st.

PRECIPITATION

This month was rainless, apart from light rain over scattered localities in the Mediterranean district during the period (23rd-28th).

The maximum monthly rainfall was 6.1 mm. reported at Ras El Teen.

The maximum daily rainfall was 3.6 mm. reported at Ras El Teen on the 26th.

Cairo, July 1972

Chairman (M. F. TAHA)

Board of Directors

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

OCTOBER — 1971

STATION	Atmospheric Pressure (mbs) M.S.L		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evap. (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	1018.0	+1.8	26.0	—1.4	17.0	—0.9	21.5	21.0	—1.6	16.2	—2.0	58	— 6	—	—	—	10.8
Mersa Matruh (A)	1018.7	+2.3	25.6	—1.4	16.4	—0.4	21.0	20.6	—1.1	17.0	—0.8	68	+ 2	289.6	353.9	82	8.7
Alexandria (A)	1018.2	+2.7	26.6	—1.2	16.3	—1.4	21.4	21.4	—1.3	17.2	—1.6	64	— 4	302.6	354.2	85	6.5
Port Said (A)	1016.4	+1.3	27.0	—0.3	18.1	—3.7	22.6	21.9	—2.2	17.7	—2.6	64	— 5	293.0	354.2	83	6.0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1017.2	+1.8	28.5	—1.6	13.4	—2.1	21.0	20.1	—2.0	15.8	—2.2	61	— 4	310.4	354.5	87	4.4
Cairo (A)	1017.0	+1.8	28.5	—1.4	16.5	—1.3	22.5	22.2	—1.3	17.0	—1.2	56	— 2	—	—	—	11.8
Fayoum	—	—	30.2	—1.2	15.6	—1.7	22.9	22.5	—1.6	17.2	—0.8	56	+ 4	—	—	—	6.8
Minya (A)	1015.6	+1.4	30.2	—1.2	15.0	—0.6	22.6	22.2	—1.0	16.1	—1.4	50	— 5	319.9	356.6	90	11.0
Assyout (A)	1013.8	+0.2	31.3	+0.2	15.6	—2.4	23.4	23.1	—1.3	15.4	—1.9	39	— 7	—	—	—	14.1
Luxor (A)	1012.9	+1.1	35.7	+0.6	16.4	—1.2	26.0	25.6	—0.7	16.8	—1.1	37	— 2	—	—	—	9.8
Aswan (A)	1012.5	+1.3	36.0	—0.9	19.4	0.0	27.7	27.3	—0.9	15.5	—0.3	22	+ 2	—	—	—	21.9
Siwa	1018.3	+2.3	29.5	—2.1	14.0	—0.9	21.8	21.6	—1.5	14.6	—1.4	42	— 2	294.8	355.8	83	8.3
Bahariya	1017.0	+2.5	29.3	—1.8	14.9	—1.1	22.1	21.8	—2.0	14.8	—1.8	43	— 6	—	—	—	10.2
Farafra	1017.7	+1.5	29.2	—2.1	14.1	—1.3	21.6	21.4	—1.8	14.1	—0.7	44	+ 8	—	—	—	13.5
Dakhla	1016.3	+3.4	30.8	—1.4	15.4	—1.7	23.1	23.0	—1.7	14.5	—0.6	34	+ 4	—	—	—	17.1
Kharga	1014.6	+1.7	32.5	—1.6	17.3	—1.1	25.0	25.1	—0.6	15.0	—1.2	33	— 1	333.4	359.2	93	16.0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1013.7	+1.6	29.4	+0.6	19.6	—0.2	24.5	24.7	—0.2	18.8	—0.4	55	— 1	329.1	357.8	92	12.5
Quseir	1013.1	+0.9	28.8	—1.3	22.2	—0.6	25.5	25.7	—0.2	19.4	—0.2	53	0	—	—	—	15.0

Table A 2 — MAXIMUM AND MINIMUM AIR TEMPERATURE

OCTOBER — 1971

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
Sollum	37.5	6	21.1	8	16	3	2	0	0	16.5	—	23.1	3	14.0	28	0	0	0	0
Marsa Matruh (A)	3[illegible].2	6	21.8	26	14	2	1	0	0	14.8	—	21.0	6	12.6	17	0	0	0	0
Alexandria (A)	36.8	6	23.9	28	26	2	1	0	0	13.7	—	20.5	4	11.2	28,29,30	0	0	0	0
Port Said (A)	32.5	6	24.0	27	28	1	0	0	0	17.9	—	20.9	4	14.8	28	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—
Tanta	38.4	6	25.0	24	30	7	1	0	0	—	—	16.4	6	9.1	30	1	0	0	0
Cairo (A)	37.2	6	24.2	24	29	7	1	0	0	—	—	20.2	3	12.7	31	0	0	0	0
Fayoum	36.5	2	26.0	24	31	13	4	0	0	12.[illegible]	—	19.5	2	10.4	29	0	0	0	0
Minya (A)	38.7	6	25.8	25	31	11	5	0	0	13.4	—	18.5	2	10.5	30	0	0	0	0
Assyout (A)	41.5	3	26.0	25	31	17	6	1	0	13.3	—	19.5	2	12.2	31	0	0	0	0
Luxor (A)	42.0	4	28.4	25	31	28	19	5	0	11.4	—	22.2	4	11.0	31	0	0	0	0
Aswan (A)	42.4	4	28.0	25	31	27	20	3	0	—	—	22.8	4	14.6	27	0	0	0	
Siwa	38.3	1	25.3	26	31	9	6	0	0	12.1	—	22.0	3	8.4	30	4	0	0	0
Bahariya	38.0	6	23.8	26	30	7	6	0	0	13.8	—	20.8	3	9.3	30	2	0	0	0
Farafra	39.2	7	23.4	26	30	8	6	0	0	11.0	—	21.5	3	8.3	30	2	0	0	0
Dakhla	39.2	3	24.7	27	30	16	7	0	0	15.2	—	24.7	2	7.7	30	1	0	0	0
Kharga	40.2	3	27.4	25	31	19	7	1	0	16.0	—	25.4	4	9.9	28	1	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	34.3	6	26.5	25	31	8	0	0	0	[illegible]	—	22.4	8	15.7	26	0	0	0	0
Quseir	31.2	2	26.3	31	31	6	0	0	0	19.[illegible]	—	25.7	[illegible]	19.8	25	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

OCTOBER 1971

Station	Mean Sky Cover Oct.					Rainfall mms.										
	00 U.T.	06 U.T.	12 U.T.	18 U.T.	Daily Mean	Total Amount	% Form 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	3.4	2.3	3.2	2.4	2.9	2.7	14.4	7	2	0	1	1	0	0	0	0
Mersa Matruh (A)	1.5	3.0	3.1	2.[illegible]	2.7	0.1	16.1	0.1	23	0	1	0	0	0	0	0
Alexandria (A)	3.3	3.7	3.7	2.5	3.0	1.9	7.3	1.0	23	0	3	1	0	0	0	0
Port Said (A)	1.4	1.9	1.8	1.3	1.7	0.4	8.5	0.4	26	1	1	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0.2	1.2	2.6	0.6	1.2	0.0	4.4	0.0	—	0	0	0	0	0	0	0
Cairo (A)	1.1	1.9	1.9	0.9	1.6	0.0	0.8	0.0	—	0	0	0	0	0	0	0
Fayoum	—	0.2	1.3	0.3	—	0.0	0.9	0.0	—	0	0	0	0	0	0	0
Minya	0.1	0.3	1.2	0.3	0.5	0.0	0.6	0.0	—	0	0	0	0	0	0	0
Assyout (A)	0.0	0.0	0.2	0.0	0.1	0.0	Tr.	0.0	—	0	0	0	0	0	0	0
Luxor (A)	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.0	0.0	0.0	0.0	0.0	0.0	Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	1.9	0.8	2.7	0.9	1.5	0.0	0.3	0.0	—	0	0	0	0	0	0	0
Bahariya	0.6	1.3	1.0	0.6	0.8	0.0	0.3	0.0	—	0	0	0	0	0	0	0
Farafra	—	0.5	0.9	0.5	—	0.0	1.0	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.0	0.1	0.0	0.0	0.0	Tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.0	0.1	0.3	0.1	0.1	0.0	Tr.	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	—	0	0	0	0	0	0	0
Quseir	0.0	0.0	0.1	0.0	0.0	0.0	0.5	0.0	—	0	0	0	0	0	0	0

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

OCTOBER — 1971

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	1	0	0	0	0	0	0	0	0	0	0	0	0	11	1
Mersa Matruh (A)	1	0	0	0	0	0	0	0	0	0	4	2	0	10	1
Alexandria (A)	5	0	0	0	0	0	3	2	0	0	0	0	0	10	0
Port Said (A)	1	0	0	0	0	0	0	0	0	0	0	0	0	20	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	0	0	0	0	0	0	5	0	0	0	0	0	0	26	0
Cairo (A)	0	0	0	0	0	0	8	1	6	0	1	0	0	20	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	1	0	1	0	3	0	0	28	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	3	0	1	0	0	31	0
Aswan (A)	0	0	0	0	0	0	0	0	0	0	17	1	0	31	0
Siwa	0	0	0	0	0	0	0	0	0	0	2	0	0	20	0
Bahariya	0	0	0	0	0	0	0	0	0	0	1	0	0	26	0
Farafra	0	0	0	0	0	0	0	0	0	0	2	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	3	0	0	31	0
Kharga	0	0	0	0	0	0	0	0	0	0	3	0	0	31	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	3	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 AND DIRECTION RECORDED WITHIN SPECIFIED RANGES

OCTOBER — 1971

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurences of wind blowing from the ranges of directions indicated												
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions
Sallum	21	3	0	1—10	27	100	72	58	15	15	4	9	21	76	81	156	634
				11—27	2	0	32	10	1	0	0	8	7	7	13	6	86
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	29	100	104	68	16	15	4	17	28	83	94	162	720
Mersa Matruh (A)	8	0	0	1—10	104	41	26	21	26	18	12	51	56	37	17	48	457
				11—27	126	43	18	7	0	3	13	17	9	0	0	43	279
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	230	84	44	28	26	21	25	68	65	37	17	91	736
Alexandria (A)	7	0	2	1—10	219	42	17	21	8	17	39	18	8	8	53	250	700
				11—27	18	0	0	0	0	0	0	0	0	0	0	17	35
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	237	42	17	21	8	17	39	18	8	8	53	267	735
Port Said	65	0	0	1—10	255	118	23	19	1	1	12	3	11	42	29	165	679
				11—27	18	1	0	0	0	0	0	0	0	4	1	6	30
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	273	119	23	19	1	1	12	3	11	46	30	171	709
Tanta	42	0	0	1—10	140	86	15	7	5	4	11	17	28	50	87	160	610
				11—27	42	14	0	0	0	0	0	0	0	0	5	30	91
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	182	100	15	7	5	4	11	17	28	50	92	190	701
Cairo (A)	137	0	2	1—10	75	153	45	32	8	0	5	6	4	6	39	44	417
				11—27	57	111	3	3	5	0	0	0	0	0	1	8	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	132	264	48	35	13	0	5	6	4	6	40	52	605
Fayoum	3	3	0	1—10	326	286	8	0	1	0	1	8	15	6	20	41	712
				11—27	0	26	0	0	0	0	0	0	0	0	0	0	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	326	312	8	0	1	0	1	8	15	6	20	41	738
Minya	3	0	0	1—10	348	37	5	1	0	1	0	6	1	4	11	41	455
				11—27	270	14	0	0	0	0	0	0	0	0	0	2	286
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	618	51	5	1	0	1	0	6	1	4	11	43	741
Assiut	8	0	16	1—10	25	12	6	2	6	4	5	5	3	139	233	152	592
				11—27	54	7	2	0	0	0	0	0	0	0	4	61	128
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	79	19	8	2	6	4	5	5	3	139	237	213	720

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

OCTOBER—1971

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)	31	0	0	1-10	51	38	13	12	15	76	181	27	36	80	119	59	707
				11-27	1	0	0	0	0	0	0	0	0	0	5	0	6
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**52**	**38**	**13**	**12**	**15**	**76**	**181**	**27**	**36**	**80**	**124**	**59**	**713**
Aswan . . . . . (A)	6	5	2	1-10	171	57	4	1	6	1	3	4	5	3	25	160	440
				11-27	147	36	1	0	0	0	0	0	0	0	5	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	**318**	**93**	**5**	**1**	**6**	**1**	**3**	**4**	**5**	**3**	**30**	**262**	**731**
Siwa	95	22	0	1-10	75	61	59	52	73	43	23	9	9	33	76	76	589
				11-27	1	1	21	8	5	0	0	0	0	0	0	2	38
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**76**	**62**	**80**	**60**	**78**	**43**	**23**	**9**	**9**	**33**	**76**	**78**	**627**
Dakhla	7	5	0	1-10	67	43	31	18	16	8	17	29	46	118	104	161	658
				11-27	9	32	20	0	0	0	0	0	0	0	0	13	74
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**76**	**75**	**51**	**18**	**16**	**8**	**17**	**29**	**46**	**118**	**104**	**174**	**732**
Kharga.	11	13	4	1-10	204	70	23	8	4	0	0	3	1	6	14	155	488
				11-27	182	34	0	0	0	0	0	0	0	0	0	12	228
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**386**	**104**	**23**	**8**	**4**	**0**	**0**	**3**	**1**	**6**	**14**	**167**	**716**
Hurghada	6	0	0	1-10	30	21	5	2	2	1	2	2	1	2	40	81	189
				11-27	313	37	0	0	0	0	0	0	0	0	21	173	544
				28-47	5	0	0	0	0	0	0	0	0	0	0	0	5
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**348**	**58**	**5**	**2**	**2**	**1**	**2**	**2**	**1**	**2**	**61**	**254**	**738**
Quseir	1	0	0	1-10	196	63	18	13	1	0	1	1	0	6	39	93	431
				11-27	108	190	10	0	0	0	0	0	0	0	0	4	312
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**304**	**253**	**28**	**13**	**1**	**0**	**1**	**1**	**0**	**6**	**39**	**97**	**743**

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

OCTOBER —1971

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	*1017m.b.	*1020m.b.	*1013m.b.	30	18.6	23.8	15.5	30	13.1
	1000	30	171	199	141	30	19.6	26.0	15.4	29	11.5
	850	30	1553	1595	1523	30	11.5	19.4	4.5	28	3.0
	700	30	3156	3222	3103	30	4.2	7.5	[illegible]	28	— 9.2
	600	30	4393	4475	4320	30	— 3.7	— 0.2	— 8.5	29	—16.7
	500	29	5809	5909	5717	29	—13.2	— 8.0	—15.0	27	—27.3
	400	29	7480	7616	7357	29	—25.7	—21.5	—30.5	28	—37.9
	300	28	9497	9671	9350	28	—40.0	—34.9	—44.0	27	—50.6
	250	28	10721	10911	10570	28	—47.5	—41.7	—49.3	27	—57.4
	200	27	12179	12401	12013	27	—54.2	—49.7	—59.9	25	—63.0
	150	26	13996	14247	13813	26	—61.0	[illegible]	—6[illegible].6	6	—65.7
	100	26	16478	16697	16284	26	—66.9	—61.[illegible]	—72.[illegible]	—	—
	70	25	18641	18912	18474	25	—64.5	—57.1	—69.4	—	—
	60	23	19924	19920	19460	23	—62.7	—59.0	—66.1	—	—
	50	22	20724	20980	20560	22	—59.8	—56.9	—61.9	—	—
	40	16	22184	22460	22030	16	—57.2	—54.6	—61.0	—	—
	30	15	23933	24204	23774	15	—54.3	—51.9	—58.0	—	—
	20	5	26548	26710	26453	5	—48.7	—42.0	—51.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	30	*1000m.b.	*1003m.b.	*996m.b.	30	19.0	26.7	16.0	30	13.3
	1000	30	143	168	107	20	18.7	21.6	16.4	20	13.4
	850	30	1530	1569	1499	30	14.2	21.6	8.2	30	2.1
	700	29	3149	3199	3076	29	6.0	8.9	1.4	29	—11.6
	600	29	4394	4454	4297	29	— 1.4	1.4	— 7.1	29	—19.1
	500	28	5822	5895	5696	28	—10.9	— 7.8	—17.3	28	—27.2
	400	28	7497	7582	7330	27	—23.3	—20.4	—30.3	27	—36.1
	300	27	9541	9661	9344	27	—38.1	—33.7	—43.0	27	—49.1
	250	27	10775	10908	10594	27	—46.2	—42.3	—51.3	27	—56.6
	200	25	12210	12373	11991	25	—54.6	—49.3	—59.6	24	—64.2
	150	23	14037	14183	13798	23	—63.0	—58.1	—66.6	2	—67.3
	100	21	16482	16587	16298	21	—71.5	—62.5	—77.7	—	—
	70	16	18606	18708	18457	16	—66.8	—62.7	—77.5	—	—
	60	13	19581	19660	19450	13	—63.1	—59.9	—66.4	—	—
	50	13	20378	20721	20528	13	—59.9	—56.3	—62.8	—	—
	40	12	22171	22260	22020	12	—57.0	—52.0	—59.3	—	—
	30	12	23921	24029	23753	12	—53.8	—48.7	—56.5	—	—
	20	10	26753	26084	26388	10	—49.4	—47.1	—52.9	—	—
	10	4	31135	31276	30988	4	—47.0	—46.0	—48.1	—	—
Aswan 0000 U.T.	Surface	29	*991m.b.	*994m.b.	*988m.b.	29	22.5	26.6	17.5	29	3.8
	1000	29	114	142	87	—	—	—	—	—	—
	850	29	1530	1557	1507	29	20.7	26.8	10.8	29	— 2.4
	700	29	3172	3213	3124	28	7.9	12.5	— 5.4	28	—13.4
	600	29	4415	4474	4280	29	1.4	6.1	— 7.2	29	—20.9
	500	29	5872	5941	5767	29	— 7.8	— 3.0	—12.7	28	—29.1
	400	28	7573	7661	7457	27	—19.7	—15.2	—22.8	27	—38.4
	300	28	9648	9784	9523	28	—34.6	—30.4	—39.3	28	—50.3
	250	28	10961	11031	10754	28	—43.6	—39.8	—47.5	28	—58.2
	200	28	12369	12522	12207	28	—54.1	—51.4	—56.5	28	—64.4
	150	26	14169	14343	14010	25	—65.0	—62.0	—69.7	—	—
	100	25	16575	16754	16424	25	—75.4	—69.9	—78.8	—	—
	70	19	18671	18849	18504	19	—69.9	—64.0	—81.0	—	—
	60	11	19608	19820	19460	11	—65.6	—61.8	—69.0	—	—
	50	11	20688	20923	20544	11	—61.7	—56.5	—66.8	—	—
	40	7	22200	22420	22040	7	—57.9	—50.4	—61.6	—	—
	30	7	23913	24173	23727	7	—54.8	—52.2	—58.2	—	—
	20	4	26542	26826	26337	4	—51.8	—48.1	—55.5	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

OCTOBER — 1971

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
[illegible]	Surface	30	*1017m.b.	*1020m.b.	*1012m.b.	30	23.6	35.4	20.0	30	14.6
	1000	30	172	200	134	80	22.0	34.6	18.1	30	12.4
	850	30	1557	1587	1520	30	11.5	19.3	4.6	30	0.1
	[illegible]	29	3157	3200	3094	29	3.7	7.0	— 0.9	29	—12.8
	[illegible]	29	4393	4444	4310	29	— 4.0	— 1.3	— 8.0	29	—20.4
	[illegible]	29	5807	5864	5702	29	—13.5	—10.1	—18.0	29	—28.9
	400	29	7470	7533	7320	29	—25.7	—21.7	—31.0	29	—39.3
	300	29	9492	9579	9355	29	—39.7	—35.4	—44.9	29	—52.0
	250	28	10718	10831	10560	28	—47.3	—43.0	—53.1	27	—58.9
	200	28	12170	12301	12000	28	—54.5	—49.8	—59.7	26	—64.9
	150	25	13979	14106	13824	25	—60.9	—56.6	—64.7	8	—68.0
	100	22	16465	16596	16314	22	—66.2	—60.2	—77.9	—	—
	70	19	18639	18781	18489	19	—63.5	—59.3	—67.4	—	—
	50	17	19621	19770	19470	17	—60.7	—55.0	—63.9	—	—
	40	17	20740	20887	20590	17	—57.3	—50.8	—61.3	—	—
	30	13	22239	22400	22100	13	—55.1	—51.8	—57.7	—	—
	20	12	24015	24153	23860	12	—51.7	—49.7	—53.0	—	—
	10	9	26685	26808	26528	9	—45.9	—41.6	—48.2	—	—
	5	1	31428	—	—	1	—43.0	—	—	—	—
[illegible]	Surface	29	*999 m.b.	*1002m.b.	*996m.b.	29	27.5	35.8	21.0	29	10.2
	1000	29	133	158	103	15	26.8	29.0	23.9	15	10.7
	850	29	1537	1574	1500	29	15.1	23.0	9.1	29	— 0.5
	700	27	3157	3209	3083	26	7.0	9.4	2.0	26	—15.0
	500	26	4403	4469	4314	26	— 0.6	2.8	— 5.9	26	—22.1
	400	26	5836	5919	5713	26	— 9.8	— 6.0	—18.6	26	—30.0
	300	26	7517	7618	7346	26	—22.2	—17.1	—29.1	26	—39.4
	200	25	9569	9713	9348	25	—36.7	—30.6	—42.0	25	—51.5
	250	24	10805	10986	10562	24	—45.1	—40.0	—49.4	24	—58.7
	200	24	12272	12476	12008	24	—53.9	—50.6	—64.6	24	—65.7
	150	23	14089	14312	13838	23	—61.4	—56.9	—64.3	2	—69.4
	100	22	16552	16772	16336	22	—69.5	—63.0	—74.4	—	—
	70	16	18681	18890	18515	16	—65.3	—58.3	—71.7	—	—
	50	10	19632	19890	19210	10	—59.6	—46.9	—65.0	—	—
	40	10	20784	20992	20653	10	—59.1	—55.2	—61.5	—	—
	30	9	22321	22500	22160	9	—54.6	—52.1	—57.0	—	—
	20	9	24057	24292	23900	9	—52.0	—50.0	—53.3	—	—
	10	8	26728	26966	26526	8	—46.7	—43.7	—49.2	—	—
	5	—	—	—	—	—	—	—	—	—	—
Aswan (A) 12(00) U.T.	Surface	31	*990m.b.	*994m.b.	987m.b.	31	34.5	40.8	27.0	31	4.8
	1000	31	105	1[illegible]	73	—	—	—	—	—	—
	850	31	1541	1580	1522	31	21.7	28.2	12.4	31	— 3.8
	700	29	3199	3240	3140	29	9.6	12.9	5.9	28	—14.6
	500	27	4415	4512	4385	27	1.9	5.6	— 7.8	27	—22.3
	400	26	5903	5967	5815	25	— 6.6	— 3.0	—10.4	25	—30.1
	300	26	7609	76[illegible]	7509	25	—18.0	—15.2	—21.3	25	—39.1
	200	26	9702	98[illegible]	9575	26	—32.9	—29.6	—37.0	25	—51.1
	250	25	10956	110[illegible]	10814	26	—42.5	—38.3	—45.6	25	—58.4
	200	26	12434	12581	12273	25	—52.7	—49.5	—55.0	21	—66.9
	150	22	14249	14376	14085	22	—64.0	—61.0	—68.1	—	—
	100	19	16689	16811	16547	19	—74.0	—69.4	—77.8	—	—
	70	16	18798	18950	18677	16	—64.8	—63.7	—73.8	—	—
	60	12	19792	19950	19670	11	—63.8	—60.9	—66.9	—	—
	50	12	20871	21013	20749	12	—58.8	—48.2	—62.1	—	—
	40	9	22416	22550	22340	9	—54.7	—51.0	—57.0	—	—
	30	9	24170	24345	24099	9	—49.6	—46.7	—51.3	—	—
	20	8	26840	27051	26788	8	—44.6	—41.6	—46.2	—	—
	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.

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

OCTOBER 1971

	Station	Freezing level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000–360)°	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh (A)	3760 (30)	664 (30)	—12.0 (28)	4550	594	— 7.9	2530	752	— 1.4	15490 (25)	131 (25)	—66.4 (25)	17570	85	—71.4	11570	212	—65.5	10603	248	250	120
	Helwan . .	4153 (29)	629 (29)	— 17.3 (29)	4[illegible]89	584	—25.0	2870	720	— 4.4	15924 (17)	112 (17)	—71.0 (17)	17060	83	—76	12140	198	—60.0	9530	294	250	112
	Aswan . . (A)	4090 (29)	582 (29)	—22.7 (29)	5320	540	—23.4	3640	658	—12.5	16[illegible]50 (19)	10[illegible] (19)	—75.5 (19)	17200	[illegible]3	—78.6	15110	128	—75.3	10720	—	2[illegible]0	95
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh (A)	3736 (29)	653 (29)	—15.3 (29)	4100	621	—15.0	2540	751	— 7.3	15169 (22)	134 (22)	—64.7 (22)	18400	76	—6[illegible]	115[illegible]	216	—54.0	10200	265	240	134
	Helwan	4361 (25)	609 (25)	—21.4 (25)	4910	569	—22.1	2790	728	— 3.8	13502 (19)	121 (19)	—68.5 (19)	17[illegible]	[illegible]2	—74.2	11[illegible]10	211	—76.3	12540	188	250	135
	Aswan . . . (A)	4859 (27)	571 (27)	—24.3 (27)	5580	525	—27.9	3880	642	—20.2	16382 (17)	107 (17)	—74.3 (17)	17[illegible]	[illegible]	71.2	17[illegible]	150	—69.2	12300	202	270	85

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)— OCTOBER 1971

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	13	3	11	0	—	0	—	1	5	0	—	3	11	3	5	4	6	0	—	0	—	7	10	4	30	8
	1000	5	14	1	3	0	—	1	18	0	—	1	17	1	24	1	2	1	5	3	13	3	11	8	19	1	26	14
	850	6	16	2	11	0	—	1	18	0	—	0	—	0	—	3	11	2	1	2	6	2	12	9	15	0	27	13
	700	1	16	4	8	1	16	0	—	0	—	0	—	1	5	4	11	2	13	2	12	7	18	3	8	0	25	13
	600	2	11	0	—	1	14	0	—	0	—	0	—	0	—	3	16	7	18	6	16	5	15	1	12	0	25	1[illegible]
	500	2	8	0	—	0	—	1	6	0	—	0	—	0	—	2	24	10	28	6	22	1	11	2	24	0	24	13
	400	1	53	2	23	0	—	0	—	0	—	0	—	0	—	4	36	13	40	3	39	1	11	0	—	0	2[illegible]	37
	300	1	42	1	43	0	—	0	—	0	—	0	—	0	—	6	54	12	63	0	—	2	13	0	—	0	22	54
	250	1	30	0	—	1	63	0	—	0	—	0	—	0	—	5	60	12	82	1	55	2	28	0	—	0	22	68
	200	0	—	0	—	1	50	0	—	0	—	0	—	0	—	4	72	11	71	2	54	1	47	1	59	0	20	[illegible]
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	54	9	61	1	47	3	34	0	—	0	16	54
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	27	4	42	4	41	1	45	1	40	0	[illegible]	37
	70	0	—	0	—	1	42	1	13	0	—	0	—	1	8	0	—	3	10	1	15	1	20	0	—	0	8	[illegible]
	60	0	—	0	—	0	—	2	12	0	—	0	—	0	—	0	—	0	—	3	12	1	16	0	—	0	6	13
	50	0	—	0	—	0	—	2	20	0	—	0	—	1	10	0	—	0	—	1	19	0	—	0	—	0	4	[illegible]
	40	0	—	0	—	0	—	1	25	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	2	[illegible]
	30	0	—	0	—	0	—	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	—	1	[illegible]
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	[illegible]
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	[illegible]
1200 U.T.	Surface	9	14	4	10	1	14	0	—	0	—	0	—	0	—	0	—	1	16	0	—	0	—	15	12	0	3[illegible]	12
	1000	11	16	2	12	0	—	0	—	0	—	1	7	0	—	0	—	1	21	0	—	0	—	14	15	0	2[illegible]	15
	850	9	13	4	8	0	—	0	—	0	—	0	—	0	—	1	6	0	10	1	12	4	8	4	15	0	2[illegible]	11
	700	4	21	2	6	0	—	0	—	0	—	1	6	2	7	2	12	8	17	2	12	3	13	4	13	0	[illegible]	1[illegible]
	600	2	36	1	5	0	—	0	—	1	6	0	—	0	—	6	14	7	15	4	24	6	16	1	11	0	[illegible]	17
	500	2	16	0	—	0	—	0	—	0	—	0	—	0	—	5	21	10	28	9	26	1	16	1	11	0	2[illegible]	2[illegible]
	400	1	32	0	—	0	—	1	2	0	—	0	—	0	—	4	30	16	38	4	52	1	20	1	45	0	[illegible]	37
	300	1	42	0	—	1	24	0	—	0	—	0	—	0	—	3	52	16	6[illegible]	4	66	1	22	1	22	0	27	55
	250	0	—	0	—	1	20	0	—	0	—	0	—	0	—	1	63	15	70	2	86	1	37	2	42	0	22	65
	200	0	—	0	—	0	—	0	—	1	7	0	—	0	—	1	79	12	69	1	64	2	37	1	40	0	18	61
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	32	11	60	1	59	2	54	1	31	0	17	54
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	18	7	31	1	30	2	49	0	—	0	12	32
	70	0	—	0	—	0	—	0	—	0	—	0	—	1	3	2	6	2	30	1	19	1	2[illegible]	0	—	0	7	17
	60	0	—	0	—	1	11	0	—	2	6	0	—	1	20	0	—	0	—	0	—	0	—	0	—	0	[illegible]	11
	50	0	—	0	—	1	8	2	2	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0	4	[illegible]
	40	0	—	0	—	1	6	0	—	1	7	0	—	0	—	0	—	1	12	0	—	0	—	0	—	0	2	8
	30	0	—	0	—	1	6	0	—	0	—	0	—	1	18	0	—	1	20	0	—	0	—	0	—	0	3	15
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	[illegible]	0	—	0	1	[illegible]
	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. *(contd.)* NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES

HELSINKI OCTOBER 1971

Time	Pressure Surface (Millibars)	Wind Direction Ranges (Degrees 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		[illegible]		[illegible]		195 / 224		[illegible]		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					
0000 U.T.	Surface	0	9	13	13	2	11	1	5	1	[illegible]	0	[illegible]	[illegible]	—	0	—	0	—	1	5	1	5	3	[illegible]	2	30	9
	1000	5	9	9	1	1	7	[illegible]	—	[illegible]	[illegible]	0	[illegible]	0	—	0	—	0	—	0	—	2	4	2	8	0	20	11
	850	4	12	6	14	1	3	1	15	[illegible]	[illegible]	[illegible]	[illegible]	2	7	2	12	1	3	4	11	5	9	0	30	10
	700	3	17	0	—	1	11		—	0	[illegible]	0	—	[illegible]	8	4	8	9	13	3	13	3	12	2	18	0	29	12
	600	1	20	1	15	0	—	0	—	0	[illegible]	0	—	1	9	1	14	11	18	3	18	3	13	1	10	1	29	15
	500	0	—	0	—	0	—	0	—	0	[illegible]	[illegible]	[illegible]	3	15	12	29	7	27	0	—	1	23	0	28	25
	400	0	—	0	—	0	—	0	—	0	[illegible]	0	—	9	28	10	41	7	37	1	16	1	27	0	28	3[illegible]
	300	0	—	0	—	0	—	0	—	0	[illegible]	0		4	31	20	50	2	36	1	25	0	—	0	27	46
	250	0	—	0	—	0	—	0	—	0	[illegible]	1	45	3	53	12	49	7	39	1	32	0	—	0	24	48
	200	0	—	0	—	0	—	0	—	0	[illegible]	0	—	3	[illegible]	12	47	5	49	1	44	0	—	0	21	46
	150	0	—	0	—	0	—	0	—	[illegible]	[illegible]	1	32	3	39	11	46	4	56	1	56	0	—	0	20	47
	100	0	—	0	—	0	—	0	—	0	—	2	34	2	12	8	39	3	37	0	—	0	—	0	15	36
	70	1	8	0	—	0	—	0	—	0	—	1	7	0	—	3	42	1	80	1	16	0	—	0	7	34
	60	0	—	0	—	0	—	1	5	[illegible]	[illegible]	[illegible]	5	1	13	1	86	0	—	1	11	0	—	0	5	35
	50	1	[illegible]	—	—	0	—	0	—	0	[illegible]	1	[illegible]	0	—	1	98	1	29	0	—	0	—	0	5	31
	40	0	—	1	17	0	—	1	5	0	[illegible]	0	—	1	15	0	—	0	—	0	—	0	—	0	3	12
	30	0	—	0	—	0	—	2	19	0	—	0	—	0	—	0	—	1	23	0	—	0	—	0	—	0	3	20
	20	0	—	0	—	0	—	0	—	1	[illegible]	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	21
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	11	10	8	11	0	—	0	—	0	—	0	—	0	—	0	—	1	12	2	6	2	8	4	8	1	29	9
	1000	8	10	6	12	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	0	—	0	15	10
	850	4	8	4	18	3	5	1	8	0	—	1	4	0	—	4	9	1	6	4	9	2	6	5	7	0	29	9
	700	1	21	1	8	0	—	0	—	0	—	0	—	3	10	8	17	5	18	2	14	2	12	4	11	0	26	15
	600	0	—	0	—	0	—	0	—	0	—	0	—	1	12	5	16	6	18	5	21	3	12	3	13	0	26	17
	500	1	15	0	—	0	—	0	—	0	—	0	—	0	—	5	20	8	25	9	24	1	13	2	14	0	26	22
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	28	12	39	7	31	1	18	2	24	0	26	33
	300	1	22	0	—	0	—	0	—	0	—	0	—	0	—	5	38	9	44	7	50	1	25	1	43	0	24	43
	250	1	31	1	50	0	—	0	—	0	—	0	—	0	—	2	52	12	48	7	54	1	28	0	—	0	24	49
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	43	11	50	8	62	1	22	1	31	0	24	52
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	38	8	40	10	55	1	42	0	—	0	21	45
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	21	10	36	1	35	1	43	0	—	0	15	33
	70	0	—	1	11	1	40	0	—	0	—	1	8	1	33	2	21	1	16	3	27	0	—	0	—	0	10	23
	60	0	—	0	—	1	11	1	16	2	18	1	8	0	—	1	18	0	—	1	13	1	18	1	24	0	9	16
	50	0	—	1	6	0	—	2	16	3	20	1	9	0	—	0	—	0	—	1	13	0	—	0	—	0	8	15
	40	0	—	0	—	0	—	1	18	0	—	4	14	0	—	1	7	0	—	1	6	0	—	0	—	0	7	12
	30	0	—	0	—	0	—	1	33	0	—	2	11	0	—	1	12	0	—	0	—	0	—	1	28	0	5	20
	20	0	—	0	—	0	—	1	34	0	—	0	—	1	15	0	—	0	—	1	12	0	—	0	—	0	3	20
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

ASWAN (A) OCTOBER 1971

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	19	13	6	12	0	—	1	0	0	—	0	—	0	—	0	—	0	—	0	—	1	13	2	12	0	29	11
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	2	12	1	12	1	13	4	15	1	12	0	—	0	—	0	—	0	—	0	—	1	9	1	8	0	28	12
	700	0	—	0	—	3	10	1	9	3	8	2	12	3	13	4	16	1	6	3	9	1	9	0	—	0	24	10
	600	0	—	0	—		—	0	—	2	4	0	—	1	4	4	10	1	13	3	10	1	14	1	12	0	13	9
	500	0	—	0	—	0	—	0	—	0	—	0	—	3	10	2	11	2	18	2	18	0	—	0	—	0	9	14
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	14	1	41	1	43	0	—	0	—	0	4	28
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	43	0	—	2	52	0	—	0	—	0	3	49
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	35	2	61	0	—	0	—	0	3	52
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	50	1	68	0	—	0	—	0	3	56
	150	0	—	0	—		—	0	—	0	—	0	—	0	—	0	—	2	48	1	66	0	—	0	—	0	3	54
	100	0	—	0	—		—		—	0	—	0	—	0	—	0	—	0	—	1	38	0	—	0	—	0	1	38
	70	0	—	0	—	0	—		—	0	—	0	—	0	—	0	—	1	9	0	—	0	—	0	—	0	1	9
	60	0	—	0	—	0	—	0	—	0	—	0	—		—	0	—	1	13	0	—	0	—	0	—	0	1	13
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	8	0	1	8
	40	0	—	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	10
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	15	10	8	10	0	—	0	—	0	—	1		0	—	0	—	1	3	0	—	1	10	3	8	2	31	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	1	15	1	4	9	7	2	14		15	3		1	5	0	—	3	5	1	9	1	9	3	9	0	30	8
	700	0	—	0	—	1	12	2	10	0	—	2	8	4	14	6	16	5	14	4	12	2	4	0	—	0	26	13
	600	0	—	0	—	1	6	0	—	1	2	3	12	7	13	5	16	5	17	2	12	2	16	0	—	0	26	14
	500	1	9	0	—	1	7	0	—	0	—	3	20	2	16	6	13	7	18	3	24	2	9	0	—	0	25	16
	400	0	—	0	—	0	—	0	—	1	8	0	—	4	19	5	17	9	28	5	22	1	8	0	—	0	25	21
	300	0	—	0	—	0	—	0	—	0	—	1	7	1	23	9	24	6	31	5	36	2	32	0	—	0	25	30
	250	1	4	1	9	0	—	0	—	0	—	1	26	0	—	4	28	13	33	5	50	1	10	0	—	0	26	32
	200	0	—	0	—	1	7	0	—	0	—	0	—	1	14	8	31	8	40	4	45	1	—	0	—	0	23	36
	150	1	21	0	—	0	—	0	—	0	—	2	22	2	15	5	23	7	26	3	24	0	—	0	—	0	20	23
	100	0	—	0	—	0	—	0	—	1	13	4	17	2	14	8	20	3	12	0	—	0	—	0	—	0	18	17
	70	0	—	0	—	1	12	2	19	4	13	3	13	0	—	0	—	0	—	2	20	0	—	0	—	0	12	15
	60	0	—	0	—	0	—	4	14	4	20	2	15	0	—	0	—	0	—	1	14	0	—	1	25	0	12	17
	50	0	—	0	—	2	24	4	22	2	13	0		1	5	0	—	0	—	0	—	0	—	0	—	0	9	19
	40	0	—	0	—	1	19	4	13	4	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	9	17
	30	0	—	0	—	0	—	5	21	3	13	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	8	18
	20	0	—	0	—	0	—	4	27	1	16	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	5	25
	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.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH OCTOBER 1971

For the month as a whole, the mean daily air temperature was slightly below normal and the mean daily relative humidity was slightly above normal. The month was rainless apart from 0.1 mm. on the 23rd against 15.4 mm. for normal.

The month was characterized by subnormal temperatures in most of its days. A heat wave was experienced on the 5th and 6th yielding the highest maximum air temperature for the month (36.2°C) on the 6th.

The extreme maximum soil temperatures were higher than the corresponding values of last October at depths between 2 and 20 cm. with departures between 0.8°C at 2 cm. and 1.4°C at 10 cm. At 50 cm. depth the extreme maximum soil temperature was the same as last October, and at 100 cm. the value was 0.6°C lower than lastOctober. The extreme minimum soil temperatures were lower than last October at all depths between 2 and 100 cm. with departures between 1.0°C and 0.4°C.

The mean daily actual sunshine duration was the same as the corresponding value of October 1970, while the mean daily values of wind speed at 1.5 m. and pan evaporation were lower than the corresponding values of October 1970 by 0.6 m./sec. and 1.28 mm. respectively.

FAHRIR OCTOBER 1971

For the month as a whole the mean dailyair temperature was below average and the mean daily relative humidity was about average. The month was rainless apart from trace on the 24th.

The month was intervened by a pronounced heat wave from the 1st till the 6th yielding the highest maximum air temperature for the month (38.5°C) on the 6th and a light heat wave on the 18th. In the rest of the month maximum air temperatures were below normal.

The extreme maximum soil temperatures were higher than the corresponding values of last October at all depths apart from the 100 cm. depth where the value was lower by 0.2°C ; the departures varied between 0.1°C at 2 cm. and 1.5°C at 5 cm. The extreme minimum soil temperatures were lower than last October at 2 and 5 cm. depths and higher at deeper depths till 100 cm. ; the departures did not exceed 0.6°C.

The mean daily values of actual sunshine duration, wind speed at 1.5 m. and pan evaporation were all lower than the corresponding values of October 1970 by 0.5 hour, 0.3 m/sec. and 1.30 mm. respectively.

BAHTIM — OCTOBER 1971

For the month as a whole, the mean daily values of air temperature and relative humidity were about the values of last October.

A heat wave prevailed from the 1st till the 6th yielding the highest maximum air temperature for the month (37.5°C) on the 6th. In the rest of the month maximum air temperatures were below average.

The extreme maximum soil temperatures were lower than last October at 2, 50 and 100 cm. depths with slight departures between 0.1°C and 0.3°C, and were higher than last October at depths between 5 and 20 cm. with departures between 1.7°C at 10 cm. and 0.4°C at 20 cm. The extreme minimum soil temperatures were lower than last October at depths between 2 and 20 cm. with departures between 1.8°C at 10 cm. and 0.4°C at 20 cm ; and were higher than last October by 0.2°C at both 50 and 100 cm.

The mean daily values of actual sunshine duration, wind speed at 1.5 m. and pan evaporation were lower than the corresponding values of October 1970 by 0.3 hour, 0.1 m./sec. and 0.53 mm. respectively.

KHARGA — OCTOBER 1971

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

A pronounced heat wave prevailed in the first week of the month yielding the highest maximum air temperature for the month (40.2°C) on the 3rd. The rest of the month was characterized by subnormal temperatures in general.

The extreme maximum soil temperatures were lower than the corresponding values of last October at 2 and 100 cm. depths with slight departures not exceeding 0.2°C ; and were higher than last October at depths between 5 and 50 cm. with departures between 0.5°C and 1.2°C. The extreme minimum soil temperatures were lower than last October at all depths between 2 and 100 cm. with slight departures between 0.1°C and 0.6°C.

The mean daily values of actual sunshine duration, wind speed at 1.5 m. and Pan evaporation were all lower than the corresponding values of October 1970 by 0.1 hour, 0.1 m/sec. and 0.60 mm. respectively.

Table C 1.—AIR TEMPERATURE AT 1½ METRES ABOVE GROUND
OCTOBER — 1971

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	25.6	16.3	20.8	18.9	22.7	24.0	24.0	24.0	24.0	22.8	[illegible]	2.9	0.4	0.03	0.0	0.0
Tahrir	29.4	13.2	20.8	[illegible]	24.0	24.0	24.0	24.0	23.9	20.3	12.2	[illegible]	[illegible]	0.2	0.0	0.0
Bahtim	28.7	12.7	20.3	[illegible]	[illegible]	24.0	24.0	24.0	23.8	19.1	12.2	5.6	0.9	0.1	0.0	0.0
Kharga	32.5	17.3	25.2	22.1	28.3	24.0	24.0	24.0	24.0	23.2	19.3	12.0	[illegible]	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 SOILS
OCTOBER — 1971

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	36.2	4	21.8	25	21.0	6	12.6	17	8.8	17	—	—
Tahrir	38.5	6	26.0	28	17.2	7	8.9	30	6.8	30	—	—
Bahtim	37.5	6	25.4	24	16.0	3	9.2	31	6.0	30,31	—	—
Kharga	40.2	3	27.4	25	2[illegible].4	4	9.9	28	7.8	27	—	—

Table C 3. (SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY & VAPOUR PRESSURE AT 1½ METRES ABOVE GROUND, EVAPORATION & RAINFALL
OCTOBER — 1971

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 G.T.	Lowest	Date	Mean of day	1200 GT	Highest	Date	Lowest	Date	Piche	Pan class (A)	Total Amount monthly	Max. fall in one day	Date
M. Matruh	365.8	289.6	353.9	82	70	59	29	6	12.9	13.5	20.9	1	7.2	31	8.7	7.46	0.1	0.1	23
Tahrir	356.7	301.6	355.0	85	71	49	20	6	12.6	12.5	18.3	2	8.7	29,30	5.7	5.08	Tr.	Tr.	24
Bahtim	368.6	302.3	355.5	85	65	41	14	6	11.3	11.2	17.6	2	7.2	30	6.7	6.51	Tr.	Tr.	24
Kharga	439.6	333.4	359.2	93	35	23	8	6	7.8	7.9	12.8	17	3.3	7	16.1	14.03	0.0	0.0	—

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

OCTOBER — 1971

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	37.7	34.5	31.1	27.8	26.7	26.0	—	—	—	—	—	—	—	—	—	—
	L	15.4	15.5	17.5	20.6	22.4	23.9	—	—	—	—	—	—	—	—	—	—
Tahrir	H	46.0	42.3	36.1	31.7	29.0	29.0	28.8	28.3	—	—	—	—	—	—	—	—
	L	15.8	16.0	17.6	21.2	23.6	25.3	26.6	27.3	—	—	—	—	—	—	—	—
Bahtim	H	45.6	38.6	34.3	30.7	30.1	29.9	28.4	26.9	—	—	—	—	—	—	—	—
	L	15.6	16.8	19.6	24.2	26.7	27.6	27.8	26.8	—	—	—	—	—	—	—	—
Kharga . . .	H	49.1	42.7	37.2	33.6	32.5	32.1	31.4	30.3	—	—	—	—	—	—	—	—
	L	12.9	17.0	20.5	24.8	28.0	29.7	30.5	30.2	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

OCTOBER — 1971

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
M. Matruh . .	3.9	3.1	4.7	31	26	12	5	1	0	0	36	7
Tahrir	1.7	1.0	2.4	31	8	1	0	0	0	0	28	7
Bahtim	2.0	1.1	2.8	29	11	1	0	0	0	0	26	20
Kharga . . .	4.2	3.4	5.1	28	21	7	1	0	0	0	31	19

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MONTHLY WEATHER REPORT

VOLUME 14 NUMBER 11

NOVEMBER, 1971

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

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968, this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

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 "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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GENERAL SUMMARY OF WEATHER CONDITIONS

NOVEMBER 1971

Rather cold in general, intervened with two warm spells. Heavy rain associated with hail and thunderstorms over the Mediterranean district on the 5th and 17th.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather this month was rather cold with subnormal temperatures in general. The month was intervened with two pronounced warm spells round the periods (12th-15th) and (26th-30th).

Weather was light rainy in general in north of the country during the first and third weeks. Heavy rain associated with hail and thunderstorms were reported in the Mediterranean district on the 5th and 17th.

Scattered early morning mist developed during several days over Delta and Cairo areas.

PRESSURE DISTRIBUTION

The outstanding features of pressure distribution over the synoptic surface charts this month were :

— The Atlantic anticyclone and its extensions over Europe and the Mediterranean.

— Deep low pressure systems through North Europe.

— Four Mediterranean transitory depressions.

— Two desert secondary depressions over North Africa.

— Four northward elongations of the Sudan monsoon trough.

The Sudan monsoon trough experienced the first two northward elongations during the first week of this month. These elongations accompanied the transits of deep low pressure tronghs north of the Black Sea area on the 1st and 5th.

Four Mediterranean depressions developed over West Mediterranean round the 9th, 19th, 22nd and 27th respectively. The first depression moved slowly northeastwards while filling and reached the Black Sea on the 14th while a desert secondary depression developed over the Western Desert and was associated with a northward elongation of the Sudan trough on the 15th. The main and secondary depressions moved afterwards northeastwards while filling.

The second and third Mediterranean depressions moved eastwards reaching Central Mediterranean on the 21st and 24th respectively, then they continued their tracks afterwards northeastwards.

The last Mediterranean depression during this month moved slowly northeastwards and amalgamated with a deep low pressure system over West Europe on the 29th, while the Sudan trough elongated northwards and a desert secondary depression appeared near the Gulf of Serte. This desert secondary depression moved northeastwards traversing north of Egypt on the last day of the month.

The barometric pressure over Egypt was affected most of this month by the extension of the Atlantic anticyclone over the Mediterranean or the establishment of a local high pressure cell over East Mediterranean

and NE Africa. On the other hand it was interrupted by the transits of the above mentioned Mediterranean depressions and the desert secondary depressions. Accordingly, the pressure over Egypt was generally above normal, and experienced consecutive falls with minima round the 5th, 15th, 22nd, 24th and 30th.

Over the 700 & 500 mb. levels the characteristic patterns were :

— The upper low pressure systems over North Atlantic and North Russia and their southward extensions through middle latitudes.

— The upper high pressure belt over the subtropics.

It is worthy to mention that three upper troughs traversed East Mediterranean and north of Egypt round the 6th, 17th & 22nd.

SURFACE WIND

The prevailing winds during this month were generally light to moderate Nly and NWly. Winds became fresh or strong in few scattered localities, mainly in the Red Sea, Western Desert and Upper Egypt districts during the first week. Calms were frequent in general during night and early morning intervals in scattered localities.

TEMPERATURE

Maximum air temperature was generally below normal, apart from the two warm periods : (12th-15th) and (26th-30th) when it was moderately above normal. Maximum air temperature values ranged most of the month between 22°C & 28°C in the northern and middle parts, and between 27°C & 33°C in the southern parts.

The absolute maximum air temperature for Egypt this month was 34.3°C reported at Aswan on the 15th.

Minimum air temperature was also below normal most of this month and above normal in few scattered days. Its values ranged in general between 7°C & 17°C, though it was between 1°C & 6°C in scattered places in Upper Egypt and Western Desert during the fourth week.

The absolute minimum air temperature for Egypt this month was 0.6°C reported at Farafra on the 24th.

PRECIPITATION

The monthly rainfall was generally above normal in the Mediterranean district and below normal elsewhere.

Light to moderate rain fell over the Medterranean district during the first and third weeks and extended to scattered localities in Lower Egypt and Cairo area districts in few days. Rain was heavy and associated with hail and thunderstorms on the 5th and 17th over scattered localities.

The maximum monthly rainfall was 41.5 mm reported at Alexandria.

The maximum daily rainfall was 17.6 mm reported at Alexandria on the 5th.

Chairman (M. F. TAHA.)

Board of Directors

Cairo, July 1972

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

NOVEMBER 1971

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	1018.0	+0.2	23.3	—1.3	13.9	—1.0	18.6	18.1	—1.7	13.2	—2.1	54	—6	—	—	—	8.3
Mersa Matruh (A)	1018.9	+1.1	22.6	—0.9	12.4	—1.0	17.5	17.0	—1.2	13.8	—0.9	68	+1	217.3	317.6	68	6.2
Alexandria. (A)	1018.9	+1.7	23.4	—1.1	12.2	—2.5	17.8	17.4	—1.9	14.5	—1.6	71	+2	227.6	318.0	72	4.1
Port Said. (A)	1017.3	+0.8	23.6	—0.4	15.0	—3.5	19.3	18.6	—2.3	15.3	—2.3	69	—2	232.1	318.0	73	5.3
El Arish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1018.6	+1.1	24.0	—1.8	10.4	—2.0	17.2	16.5	—1.9	13.3	—1.9	68	—2	242.9	318.8	76	2.8
Cairo. (A)	1018.5	+1.4	25.0	—0.2	12.5	—1.3	18.8	18.1	—1.2	13.5	—1.5	57	—4	—	—	—	9.2
Fayoum.	—	—	25.2	—1.3	10.7	—2.5	17.8	17.6	—1.9	13.8	—1.3	63	+4	—	—	—	4.1
Minya. (A)	1017.7	+1.1	24.9	—1.9	9.7	—1.8	17.3	16.8	—1.6	12.5	—2.0	58	—2	266.4	323.5	82	6.3
Assyout. (A)	1015.9	—0.5	25.8	—0.8	10.9	—1.9	18.4	17.8	—1.6	11.7	—1.9	43	—5	—	—	—	9.3
Luxor (A)	1015.8	+1.2	29.0	—0.7	10.2	—2.0	19.6	19.1	—0.6	12.8	—2.0	44	—3	—	—	—	6.1
Aswan. (A)	1015.6	+1.2	29.3	—1.2	13.8	—0.8	21.6	21.1	—1.3	12.5	—1.0	30	0	—	—	—	15.0
Siwa	1018.8	+0.8	25.2	—1.1	9.4	—0.7	17.3	16.7	—1.3	11.4	—1.2	46	—4	215.0	321.7	67	6.6
Bahariya	1018.8	+1.1	24.8	—1.4	8.7	—2.6	16.8	16.4	—1.8	10.8	—2.7	45	—6	—	—	—	6.6
Farafra.	1019.9	+1.4	24.1	—2.1	7.8	—2.9	16.0	15.6	—2.7	10.6	—1.3	49	+6	—	—	—	7.9
Dakhla.	1018.8	+3.4	26.2	—1.5	8.2	—3.3	17.2	16.8	—2.3	10.4	—1.6	39	+1	—	—	—	10.3
Kharga.	1017.2	+1.1	27.4	—1.3	11.2	—1.7	19.3	19.8	—0.8	11.5	—1.9	35	—7	290.9	328.5	89	11.4
Tor.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada.	1016.3	+1.5	25.7	—0.2	14.7	—0.8	20.0	20.0	—0.9	14.8	—0.9	54	0	275.1	325.8	84	9.0
Quseir.	1015.8	+1.2	25.3	—2.0	18.2	—1.3	21.8	21.8	—1.3	16.2	—1.1	53	0	—	—	—	12.9

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURE

NOVEMBER 1971

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	29.5	13	18.1	22	8	0	0	0	0	13.4	—	19.5	13	7.3	22	2	0	0	0
Mersa Matruh (A)	28.9	29	18.0	22	7	0	0	0	0	11.0	—	16.0	15	8.4	22	3	0	0	0
Alexandria . .(A)	26.6	13	18.6	22	4	0	0	0	0	10.3	—	17.4	8,16	8.4	26	8	0	0	0
Port Said . .(A)	26.5	1	18.7	22	5	0	0	0	0	14.7	—	19.4	1	10.5	23	0	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	28.3	28,30	18.5	22	8	0	0	0	0	—	—	14.3	16	7.1	24	11	0	0	0
Cairo . . . .(A)	28.4	30	19.3	22	8	0	0	0	0	—	—	17.0	30	8.0	24	2	0	0	0
Fayoum	29.7	28	21.0	21.22	17	0	0	0	0	7.0	—	15.3	16	5.0	23	10	0	0	0
Minya . . . (A)	29.8	13	19.8	22	13	0	0	0	0	6.9	—	14.4	17	4.0	23	13	2	0	0
Assyout . . .(A)	31.5	30	20.0	22	18	2	0	0	0	8.5	—	14.7	17	6.5	24	5	0	0	0
Luxor . . . .(A)	33.2	15	23.7	6	29	12	0	0	0	5.6	—	14.4	18	4.2	24	13	1	0	0
Aswan . . . .(A)	34.3	15	24.2	19	28	12	0	0	0	—	—	17.3	16	10.0	21	0	0	0	0
Siwa	28.9	29	19.0	5	21	0	0	0	0	8.1	—	14.6	1	2.9	24	18	1	0	0
Bahariya	31.1	13	18.9	22	11	3	0	0	0	7.9	—	13.8	17	2.6	24	19	2	0	0
Farafra	29.7	14	17.6	22	19	0	0	0	0	7.7	—	12.9	3	0.6	24	24	5	0	0
Dakhla	32.4	30	20.1	22	18	5	0	0	0	8.0	—	13.8	2	1.0	24	20	5	0	0
Kharga	33.5	15	22.0	23	24	6	0	0	0	9.2	—	17.4	1	3.0	24	11	3	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada.	28.3	14	22.7	23	21	0	0	0	0	—	—	17.8	17	10.6	24	0	0	0	0
Quseir	28.6	22	22.4	23	16	0	0	0	0	15.8	—	20.8	1	15.4	24	0	0	0	0

Table A 3.—SKY COVER AND RAINFALL

NOVEMBER 1971

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	3.5	3.1	3.7	3.1	3.4	11.8	—16.7	5.8	5	0	4	3	1	0	0	0
Mersa Matruh (A)	1.5	4.0	4.4	2.4	3.2	19.3	— 4.3	7.8	18	0	5	3	2	0	0	0
Alexandria . . (A)	3.9	4.6	5.4	4.4	4.5	41.5	+12.7	17.6	5	1	6	5	2	2	0	0
Port Said . . (A)	1.5	3.1	3.2	2.2	2.4	17.3	+ 7.6	10.7	5	0	5	3	1	1	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta.	1.3	2.3	3.9	1.3	2.3	3.0	—1.2	2.9	17	0	2	1	0	0	0	0
Cairo. . . . . (A)	0.7	2.2	4.4	1.9	2.2	0.7	—2.0	0.6	6	0	2	0	0	0	0	0
Fayoum	—	2.4	3.9	2.0	—	0.0	—0.5	0.0	—	0	0	0	0	0	0	0
Minya . . . . (A)	0.5	1.6	2.9	1.2	1.7	0.0	—0.2	0.0	—	0	0	0	0	0	0	0
Assyout . . . (A)	0.7	1.0	1.3	1.3	1.0	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Luxor . . . . (A)	0.7	1.4	1.7	1.1	1.2	0.0	—0.1	0.0	—	0	0	0	0	0	0	0
Aswan . . . . (A)	0.2	1.1	1.8	1.1	1.1	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Siwa	3.1	2.3	4.5	3.0	3.3	0.0	—0.6	0.0	—	0	0	0	0	0	0	0
Bahariya	0.6	1.7	3.2	1.1	1.7	0.0	—0.6	0.0	—	0	0	0	0	0	0	0
Farafra	—	1.7	2.3	1.2	—	0.0	—0.1	0.0	—	0	0	0	0	0	0	0
Dakhla	0.0	0.4	0.8	0.1	0.4	0.0	—Tr.	0.0	—	0	0	0	0	0	0	0
Kharga	0.5	1.4	1.5	0.6	1.0	0.0	—0.1	0.0	—	0	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1.1	1.7	2.4	1.1	1.7	0.0	—0.2	0.0	—	0	0	0	0	0	0	0
Quseir	0.4	1.2	1.7	1.2	1.1	0.0	—1.9	0.0	—	0	0	0	0	0	0	0

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

NOVEMBER 1971

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky
	Rain	Snow	Ice. Pellets	Hail											
Sallum	4	0	0	0	0	0	0	0	0	0	1	0	0	8	1
Mersa Matruh (A)	5	0	0	0	0	1	2	0	0	0	4	2	0	6	1
Alexandria (A)	6	0	0	0	0	3	6	8	2	0	1	0	0	2	3
Port Said (A)	5	0	0	0	0	1	0	0	0	0	0	0	0	14	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	2	0	0	0	0	0	10	3	0	0	0	0	0	11	0
Cairo (A)	2	0	0	0	0	0	4	2	13	0	2	1	0	13	0
Fayoum	0	0	0	0	0	0	0	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	10	1	6	0	0	0	0	21	0
Assyout (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
Luxor (A)	0	0	0	0	0	0	0	0	3	0	0	0	0	21	0
Aswan (A)	0	0	0	0	0	0	0	0	1	0	9	0	0	23	0
Siwa	0	0	0	0	0	0	0	0	0	0	4	0	0	9	3
Bahariya	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Farafra	0	0	0	0	0	0	0	0	1	0	0	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	1	0	0	30	0
Kharga	0	0	0	0	0	0	0	0	0	0	3	0	0	23	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	2	0	0	19	1
Quseir	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0

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

NOVEMBER — 1971

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	531 / 344	All directions
Sallum	15	2	0	1—10	21	23	22	16	26	19	8	54	48	54	90	97	478
				11—27	0	0	0	0	0	0	1	26	56	52	67	20	222
				28—47	0	0	0	0	0	0	0	1	0	2	0	0	3
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**21**	**23**	22	**16**	**26**	**19**	**9**	**81**	**104**	**108**	**157**	**117**	**703**
Mersa Matruh	1	0	0	1—10	21	9	4	12	35	43	45	39	53	36	47	46	390
				11—27	15	6	3	4	6	15	26	81	60	26	32	47	321
				28—47	0	0	0	0	0	0	0	2	3	2	1	0	8
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**36**	**15**	**7**	**16**	**41**	**58**	**71**	**122**	**116**	**64**	**80**	**93**	**719**
Alexandria	26	1	0	1—10	36	25	39	35	25	42	71	96	40	16	97	134	656
				11—27	4	0	0	0	0	1	0	18	13	0	0	1	37
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**40**	**25**	**39**	**35**	**25**	**43**	**71**	**114**	**53**	**16**	**97**	**135**	**693**
Port Said	13	0	0	1—10	123	82	60	54	20	3	15	8	26	80	70	118	659
				11—27	2	0	0	3	2	2	1	11	17	9	1	0	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	**125**	82	**60**	**57**	**22**	**5**	**16**	**19**	**43**	**89**	**71**	**118**	**707**
Tanta	55	0	0	1—10	63	51	70	31	18	10	22	57	68	66	65	84	605
				11—27	0	0	2	5	0	0	2	2	16	6	8	18	59
				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	**63**	**51**	**72**	**37**	**18**	**10**	**24**	**59**	**84**	**72**	**73**	**102**	**665**
Cairo	130	0	0	1—10	44	66	65	78	21	19	46	34	12	20	45	45	495
				11—27	5	18	14	4	0	0	10	9	5	17	3	10	95
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**49**	**84**	**79**	**82**	**21**	**19**	**56**	**43**	**17**	**37**	**48**	**55**	**590**
Fayoum	7	6	0	1—10	187	209	33	18	10	26	14	30	51	31	26	62	697
				11—27	0	5	0	0	0	0	0	0	0	5	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	**187**	**214**	**33**	**18**	**10**	**26**	**14**	**30**	**51**	**36**	**26**	**62**	**707**
Minya	22	0	0	1—10	340	37	5	6	4	3	21	17	9	14	18	70	544
				11—27	119	19	1	0	0	1	0	0	0	0	1	13	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	**459**	**56**	**6**	**6**	**4**	**4**	**21**	**17**	**9**	**14**	**19**	**83**	**698**

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

NOVEMBER — 1971

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
Asyout . . . . (A)	18	0	69	1—10	21	8	4	7	5	6	12	4	4	61	294	110	536
				11—27	38	2	0	0	0	0	0	0	0	1	7	49	97
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**59**	**10**	**4**	**7**	**5**	**6**	**12**	**4**	**4**	**62**	**301**	**159**	**633**
Luxor . . . . . (A)	16	0	0	1—10	46	54	19	36	19	83	128	28	23	34	132	99	701
				11—27	0	0	0	0	0	0	0	0	0	1	2	0	3
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**46**	**54**	**19**	**36**	**19**	**83**	**128**	**28**	**23**	**35**	**134**	**99**	**704**
Aswan . . . . . (A)	3	0	0	1—10	225	77	11	6	0	2	1	2	1	6	7	174	512
				11—27	100	29	0	0	0	0	0	0	0	0	4	72	205
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**325**	**106**	**11**	**6**	**0**	**2**	**1**	**2**	**1**	**6**	**11**	**246**	**717**
Siwa	75	25	0	1—10	26	10	15	49	118	70	36	10	18	55	125	63	595
				11—27	0	1	0	0	0	0	0	4	3	0	12	5	25
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**26**	**11**	**15**	**49**	**118**	**70**	**36**	**14**	**21**	**55**	**137**	**68**	**620**
Dakhla	44	18	0	1—10	40	29	11	15	13	10	43	48	74	94	146	116	639
				11—27	7	1	0	0	0	0	0	0	0	0	5	6	19
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**47**	**30**	**11**	**15**	**13**	**10**	**43**	**48**	**74**	**94**	**151**	**122**	**658**
Kharga	12	3	0	1—10	247	94	9	8	2	5	6	7	9	9	23	122	541
				11—27	131	26	0	0	0	0	0	0	0	0	0	7	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	**378**	**120**	**9**	**8**	**2**	**5**	**6**	**7**	**9**	**9**	**23**	**129**	**705**
Hurghada	17	0	0	1—10	35	49	8	0	1	1	0	2	3	1	108	129	337
				11—27	118	9	0	0	0	0	0	0	0	0	70	169	366
				28—47	0	0	0	0	0	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**	**58**	**8**	**0**	**1**	**1**	**0**	**2**	**3**	**1**	**178**	**298**	**703**
Quseir	6	0	0	1—10	67	53	25	7	0	0	0	0	4	5	28	186	375
				11—27	150	174	4	0	0	0	0	0	0	0	1	10	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	**217**	**227**	**29**	**7**	**0**	**0**	**0**	**0**	**4**	**5**	**29**	**196**	**714**

UPPER AIR CLIMATOLOGICAL DATA

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

NOVEMBER — 1971

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	28	*1017mb.	*1020mb.	*1012mb.	28	15.2	18.6	10.0	28	9.8
	1000	28	174	214	129	28	17.3	20.6	12.4	27	11.5
	850	28	1548	1590	1486	28	10.6	17.4	4.4	27	— 1.5
	700	28	3137	3205	3048	28	1.6	6.2	— 4.0	27	—12.3
	600	28	4260	4451	4243	28	— 5.9	— 1.5	—14.0	27	—19.3
	500	28	5773	5893	5606	28	—14.0	—10.0	—24.0	27	—27.8
	400	28	7415	7574	7206	28	—26.5	—21.1	—34.7	27	—37.2
	300	28	9589	9625	9196	28	—41.0	—36.9	—45.7	27	—51.1
	250	28	10662	10847	10406	28	—50.1	—44.9	—55.7	26	—59.1
	200	28	12095	12283	11846	28	—58.5	—51.0	—64.5	14	—66.4
	150	27	13882	14063	13651	27	—63.3	—57.8	—66.9	4	—68.6
	100	27	16350	16510	16166	27	—67.3	—62.2	—72.1	—	—
	70	21	18500	18661	18270	21	—61.5	—59.4	—68.5	—	—
	60	16	19481	19610	19330	16	—61.6	—57.0	—65.2	—	—
	50	16	20604	20780	20458	16	—59.4	—54.8	—63.1	—	—
	40	16	22081	22300	21940	16	—56.6	—51.1	—60.9	—	—
	30	14	23829	23969	23683	14	— 54.2	—52.0	— 56.4	—	—
	20	8	26428	26609	26303	8	—51.1	—49.5	—53.4	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	28	*1002mb.	*1006mb.	*996 mb.	28	15.3	18.7	11.3	28	8.9
	1000	28	155	193	106	23	15.4	18.7	12.2	23	8.4
	850	28	1525	1558	1474	27	10.4	16.8	5.9	27	— 3.5
	700	28	3119	3168	3042	27	2.6	7.0	— 5.0	27	—14.2
	600	28	4347	4419	4238	27	— 4.9	— 0.9	—13.6	27	—20.1
	500	28	5762	5846	5603	27	—14.0	— 9.2	—22.0	27	—28.6
	400	28	7420	7520	7219	28	—25.0	—18.2	—30.4	28	—36.5
	300	27	9442	9540	9283	27	—40.6	—33.1	—47.5	27	—51.1
	250	27	10659	10801	10474	27	—49.7	—40.0	—54.0	27	—59.1
	200	27	12090	12261	11898	27	—58.6	—47.4	—63.2	15	—64.9
	150	26	13883	14077	13689	26	—64.5	—57.5	—69.0	1	—63.5
	100	20	16346	16515	16222	20	—69.1	—63.1	—74.7	—	—
	70	12	18474	18612	18382	12	—65.5	—62.1	—70.0	—	—
	60	10	19461	19590	19353	10	—63.4	—58.5	—67.0	—	—
	50	10	20548	20679	20422	10	—60.5	—56.0	—64.4	—	—
	40	8	22085	22470	21920	8	—58.2	—54.9	—61.3	—	—
	30	7	23749	23898	23590	7	—54.6	—50.3	—58.8	—	—
	20	4	26433	26538	26351	4	—47.8	—43.9	—49.6	—	—
	10	1	31118	—	—	1	—43.9	—	—	—	—
Aswan 0000 U.T.	Surface	29	*994mb.	*997mb.	*990mb.	29	17.0	21.8	13.0	29	3.0
	1000	29	139	168	101	—	—	—	—	—	—
	850	29	1534	1561	1504	29	16.1	22.7	9.4	29	— 2.9
	700	27	3163	3210	3116	27	8.2	11.6	3.0	26	—14.4
	600	26	4418	4477	4370	26	0.5	3.1	— 2.9	26	—20.9
	500	25	5855	5922	5793	25	— 8.9	— 6.0	—12.1	25	—27.5
	400	24	7545	7634	7470	23	—21.1	—17.4	—23.9	22	—36.6
	300	22	9601	9691	9520	21	—36.8	—32.7	—40.8	19	—48.5
	250	20	10838	10941	10756	20	—46.6	—42.9	—51.2	20	—56.7
	200	20	12287	12463	12187	19	—56.6	—53.2	—62.4	16	—65.5
	150	20	14072	14208	13955	19	—65.8	—57.0	—69.9	—	—
	100	18	16492	16622	16385	18	—73.5	—68.0	—79.1	—	—
	70	15	18601	18741	18508	15	—69.1	—63.6	—73.8	—	—
	60	12	19578	19780	19480	12	—65.8	—61.1	—68.5	—	—
	50	11	20711	20781	20573	11	—66.8	—57.7	— 65.5	—	—
	40	8	22158	22210	22070	8	—57.6	—54.7	—60.9	—	—
	30	8	23903	23995	23828	8	—53.2	—48.7	—55.8	—	—
	20	5	26560	26631	26498	5	—48.3	—44.0	—51.2	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

UPPER AIR CLIMATOLOGICAL DATA

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

NOVEMBER — 1971

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 U.T.	Surface	30	*1017mb.	*1021mb.	*1012mb.	30	21.3	28.1	16.2	30	12.0
	1000	30	170	208	130	30	20.0	27.0	15.2	30	9.7
	850	30	1545	1602	1491	30	10.0	17.1	2.6	30	— 0.8
	700	30	3153	3226	3015	30	1.5	7.6	— 7.0	30	—11.8
	600	30	4361	4467	4236	30	— 6.3	— 1.2	—13.1	29	—18.3
	500	29	5766	5897	5602	29	—15.2	—10.5	—22.5	29	—26.6
	400	29	7418	7592	7210	29	—26.5	—23.1	—33.5	29	—37.3
	300	29	9446	9651	9221	29	—40.6	—36.3	—46.5	29	—50.5
	250	29	10664	10891	10426	29	—46.1	—43.9	—54.3	27	—58.8
	200	28	12096	12354	11861	28	—58.3	—48.7	—62.5	17	— 65.3
	150	26	13896	14156	13621	26	—63.0	—55.9	—67.3	3	—67.1
	100	23	16380	16680	16136	23	—66.0	—58.2	—70.4	—	—
	70	21	18503	18714	18383	21	—63.7	—59.0	—68.2	—	—
	60	21	19531	19770	19306	21	—61.5	—57.0	—66.5	—	—
	50	20	20631	20784	20443	20	—57.9	—54.2	—60.4	—	—
	40	14	22140	22300	22000	14	—54.9	—51.3	—57.0	—	—
	30	14	23914	24052	23753	14	—51.5	—46.0	—55.0	—	—
	20	9	26612	26716	26454	9	—46.9	—42.9	—51.8	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	30	*1001mb.	*1005mb.	*995mb.	30	22.9	29.4	18.0	30	8.2
	1000	30	148	200	97	23	22.7	29.4	18.0	23	8.0
	850	30	1531	1565	1470	30	11.5	19.0	3.0	30	—1.9
	700	30	3128	3192	3037	30	3.8	8.1	— 3.4	30	—14.2
	600	29	4367	4441	4244	29	—3.3	— 0.2	— 9.0	29	—19.2
	500	29	5792	5872	5626	29	—12.6	— 8.4	—19.2	29	—26.9
	400	29	7451	7562	7260	29	—24.0	—19.2	—30.6	29	—37.0
	300	28	9587	9631	9286	28	—39.3	—35.0	—45.0	28	—50.8
	250	28	10710	10844	10509	28	—48.5	—43.0	—52.6	28	—59.0
	200	28	12150	12327	11941	28	—57.3	—49.9	—61.9	20	—66.0
	150	28	13910	14147	13720	28	—62.7	—58.9	—68.5	2	—69.9
	100	25	16126	16617	16178	25	—67.1	—62.2	—71.3	—	—
	70	24	18585	18735	18395	24	—65.1	—59.8	—69.1	—	—
	60	20	19563	19720	19400	20	—62.9	—58.3	— 65.8	—	—
	50	20	20631	20803	20503	20	— 58.8	— 53.5	—61.8	—	—
	40	16	22174	22300	22030	16	—55.2	—52.4	—57.0	—	—
	30	16	23934	24052	23781	16	—52.2	—50.3	—53.6	—	—
	20	11	26596	26682	26488	11	—46.4	—42.3	—48.9	—	—
	10	1	29327	—	—	1	—39.2	—	—	—	—
Aswan 1200 U.T.	Surface	28	*993mb.	*996mb.	*989mb.	28	27.6	33.0	22.2	28	5.7
	1000	28	132	158	95	—	—	—	—	—	—
	850	27	1540	1563	1515	27	16.3	21.3	10.4	27	— 3.8
	700	27	3168	3206	3119	27	8.6	12.9	4.4	26	—15.0
	600	25	4427	4475	4374	25	1.1	4.5	— 3.9	25	—20.6
	500	24	5862	5918	5798	24	— 8.1	— 4.7	—10.9	24	—27.7
	400	23	7559	7638	7488	23	—20.1	—15.8	—23.4	22	—37.3
	300	21	9629	9740	9543	21	—35.5	—30.3	—39.7	20	—49.8
	250	18	10870	10996	10781	18	—45.5	—41.1	—50.2	18	—59.0
	200	17	12336	12475	12222	16	—56.0	—52.7	—61.4	14	—67.4
	150	18	14120	14280	13994	18	—65.5	—62.5	—67.4	—	—
	100	17	16531	16728	16434	16	—72.8	—68.0	—78.5	—	—
	70	12	18642	18794	18570	11	—67.6	—63.5	—72.3	—	—
	60	7	19597	19760	19470	6	—64.7	—60.7	—67.2	—	—
	50	7	20714	20854	20636	6	—59.6	—56.0	—62.2	—	—
	40	6	22238	22380	22130	6	—55.8	—52.9	—59.0	—	—
	30	6	23999	24110	23899	6	—50.0	—46.3	— 52.4	—	—
	20	6	26680	26782	26601	6	—46.1	—43.5	—47.5	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

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

NOVEMBER — 1971

	Station	Freezing level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gmb)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)°	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh.	3256 (28)	693 (28)	—10.3 (27)	4240	622	— 9.2	2050	798	— 4.7	13445 (26)	166 (26)	—65.0 (26)	17200	88	—66.4	10290	290	—53.2	9040	317	260	145
	Helwan. . . .	3544 (28)	667 (28)	—14.6 (28)	4300	611	—17.7	2330	770	—2.0	13295 (16)	174 (16)	—64.3 (16)	16000	104	—70.3	6960	418	—29.7	13020	177	310	148
	Aswan.	4475 (26)	596 (26)	—20.6 (26)	5000	500	—15.5	3500	672	— 9.1	15410 (15)	122 (15)	—73.2 (15)	17060	82	—78.1	12460	193	—63.5	12175	202	266	115
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	Mersa Matruh.	2333 (30)	695 (30)	—10.9 (30)	4260	616	—13.5	1750	825	— 4.3	13676 (23)	161 (23)	—64.6 (23)	17470	84	—75.2	11220	231	—53.2	8850	326	200	140
	Helwan. . . .	3703 (29)	654 (29)	—15.1 (29)	4400	601	—17.7	2120	791	— 4.0	14376 (24)	146 (24)	—66.7 (24)	17370	87	—69.9	12390	190	— 63.7	14570	137	300	145
	Aswan.	4567 (23)	591 (23)	—21.7 (23)	5200	545	—23.5	3800	645	—11.5	15528	120	—72.9	16592	100	—77.5	14320	142	—68.4	12280	199	280	118

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

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

MERSA MATRUH (A)—NOVEMBER 1971

Station	Prussure Surfaec (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				
			(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)	N	(ff)			
			m		m		m		m		m		m		m		m		m		m		m		m			
0000 U.T.	Surface	1	15	1	3	0	—	0	—	2	10	1	10	6	8	6	9	6	8	3	7	1	15	1	11	0	28	9
	1000	1	20	1	12	0	—	1	13	1	22	6	11	2	6	1	14	6	16	4	14	2	15	2	13	0	27	14
	850	1	23	2	8	0	—	0	—	0	—	2	7	2	20	0	—	5	12	2	9	6	15	6	16	1	27	13
	700	2	18	0	—	0	—	0	—	1	18	0	—	1	15	2	18	2	28	9	19	4	18	6	17	0	27	19
	600	1	10	0	—	0	—	0	—	0	—	1	26	0	—	1	32	5	28	11	33	5	25	3	29	0	27	39
	500	1	39	1	6	0	—	1	39	0	—	0	—	0	—	0	—	5	39	10	53	8	32	0	—	0	26	41
	400	1	47	1	13	0	—	1	55	0	—	0	—	0	—	0	—	6	73	12	56	4	42	0	—	0	25	55
	300	0	—	0	—	0	—	1	57	0	—	0	—	0	—	0	—	3	75	14	80	4	69	1	62	0	23	75
	250	0	—	0	—	0	—	1	85	0	—	0	—	0	—	0	—	1	82	8	84	9	80	1	61	0	20	81
	200	0	—	0	—	0	—	0	—	1	73	0	—	0	—	0	—	1	100	5	93	9	93	0	—	0	16	92
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	84	2	66	4	66	0	—	0	7	69
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	75	5	44	0	—	0	—	0	6	49
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	35	0	—	0	—	0	1	35
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	7	0	—	0	—	0	1	7
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	1	20
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-	—	—
1200 U.T.	Surface	2	6	0	—	1	8	1	8	2	7	1	13	0	—	5	13	1	8	3	15	8	13	6	10	0	30	11
	1000	1	12	1	6	0	—	0	—	3	8	1	9	3	10	1	10	1	13	3	18	7	17	8	17	0	29	14
	850	1	10	0	—	0	—	1	8	0	—	2	14	1	11	4	14	5	9	4	10	8	16	3	11	0	29	12
	700	1	12	0	—	0	—	0	—	0	—	0	—	0	—	1	10	9	21	8	20	7	21	3	19	0	29	20
	600	1	24	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	32	12	29	9	23	2	22	0	29	27
	500	0	—	1	27	0	—	0	—	0	—	0	—	0	—	2	38	5	51	14	41	3	36	3	24	0	28	40
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	62	7	55	11	56	8	45	1	29	0	28	53
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	73	8	75	11	68	0	—	0	24	71
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	3	83	9	79	8	74	0	—	0	21	76
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	83	11	80	4	92	0	—	0	18	83
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	66	4	56	3	69	0	—	0	11	63
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	45	1	48	0	—	0	6	46
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	2	20	1	24	0	—	0	4	18
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	24	0	—	1	10	1	10	0	—	0	3	15
	50	0	—	0	—	1	40	0	—	0	—	0	—	0	—	0	—	0	—	2	12	0	—	0	—	0	3	22
	40	0	—	1	3	0	—	0	—	0	—	0	—	0	—	0	—	1	22	0	—	0	—	0	—	0	2	12
	30	0	—	0	—	0	—	1	5	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	5
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

HELWAN — NOVEMBER 1971

Station	Pressure Surface (Millibar)	Wind between specified ranges of direction (000—360°)																								Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (knots)
		345 / 014		015 / 044		045 / 074		075 / 104		105 / 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	6	8	10	8	1	11	3	5	1	4	1	11	0	—	1	5	0	—	0	—	0	—	1	5	4	28	6
	1000	6	8	9	12	4	7	2	6	0	—	0	—	0	—	1	5	0	—	0	—	0	—	1	7	0	23	9
	850	7	11	4	11	0	—	2	9	0	—	1	3	1	6	0	—	3	15	6	12	2	10	2	12	0	28	11
	700	4	18	1	13	0	—	0	—	0	—	0	—	2	9	0	—	5	15	9	15	3	14	4	13	0	28	14
	600	2	12	0	—	0	—	0	—	0	—	0	—	1	7	0	—	8	28	6	23	5	19	5	16	1	28	20
	500	0	—	0	—	0	—	1	2	1	12	0	—	0	—	1	36	5	41	9	35	8	26	3	33	0	28	31
	400	0	—	0	—	1	8	0	—	0	—	0	—	0	—	0	—	3	48	15	46	3	30	5	47	0	27	43
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	76	6	68	14	54	1	41	0	25	61
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	7	74	13	62	1	51	0	22	63
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	21	7	74	9	78	3	67	0	20	72
	150	0	—	0	—	0	—	0	—		—	0	—	0	—	0	—	0	—	8	62	7	78	0	—	0	15	70
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	59	3	71	0	—	0	9	63
	70	0	—	0	—	0	—	0	—	1	14	0	—	0	—	0	—	2	28	2	90	0	—	0	—	0	5	50
	60	0	—	0	—	0	—	0	—	0	—	0	—	1	23	0	—	0	—	2	71	0	—	1	76	0	4	60
	50	0	—	0	—	0	—	0	—	0	—	0	—	1	12	0	—	0	—	1	16	2	82	0	—	0	4	48
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	36	0	—	1	9	0	2	22
	30	0	—	0	—	0	—	0	—	0	—	0	—	1	23	0	—	0	—	0	—	0	—	0	—	0	1	23
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	7	11	3	7	1	9	0	—	0	—	2	4	0	—	1	3	3	7	5	9	3	7	4	10	1	30	8
	1000	5	11	5	12	1	9	0	—	0	—	2	4	0	—	1	3	1	10	2	7	1	10	5	10	0	23	9
	850	6	9	4	10	1	19	1	7	1	9	0	—	0	—	4	9	2	13	4	8	2	8	4	12	0	29	10
	700	4	14	1	19	1	21	0	—	0	—	0	—	1	19	5	10	3	13	7	23	1	25	5	14	0	28	17
	600	1	21	0	—	1	5	0	—	0	—	0	-	1	5	0	—	9	23	5	31	4	16	6	20	0	27	21
	500	0	—	0	—	0	—	1	9	0	—	0	—	0	—	0	—	7	36	9	37	7	23	3	33	0	27	31
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	24	4	55	10	48	11	39	1	30	0	28	43
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	85	16	61	5	58	2	60	0	27	61
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	2	78	10	68	12	63	1	60	0	26	64
	200	1	62	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	8	76	10	78	2	74	0	22	74
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	56	8	79	1	70	0	18	67
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	48	5	58	1	47	0	13	50
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	56	5	25	2	24	0	—	0	8	29
	60	0	—	0	—	0	—	0	—	1	41	0	—	0	—	0	—	0	—	4	18	1	22	0	—	0	6	22
	50	0	—	0	—	1	16	0	—	0	—	1	24	0	—	0	—	0	—	2	32	1	29	0	—	0	5	26
	40	0	—	0	—	1	31	0	—	0	—	1	22	0	—	0	—	1	8	0	—	1	13	0	—	0	4	18
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	28	1	28	0	—	0	—	0	2	28
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	1	9	0	2	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 observed for all directions during the month.

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

ASWAN (A) – NOVEMBER 1971

Station	Prussure 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	21	10	4	9	0	—	0	—	1	12	0	—	0	—	0	—	0	—	0	—	1	8	2	14	0	29	10
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	4	11	5	14	4	16	4	9	2	7	3	7	2	8	0	—	2	9	1	3	1	15	1	17	0	29	11
	700	2	16	4	9	0	—	2	3	1	6	1	12	0	—	2	6	6	16	4	17	2	6	3	9	0	27	11
	600	1	4	1	18	0	—	0	—	0	—	0	—	1	6	1	13	6	29	3	29	7	14	6	18	0	26	19
	500	1	21	0	—	0	—	0	—	0	—	0	—	0	—	1	19	4	28	7	37	7	23	4	25	0	24	28
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	3	46	5	51	10	40	3	31	0	22	41
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	54	5	69	9	46	3	40	0	19	52
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	6	70	5	57	4	54	0	16	60
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	73	6	58	1	64	0	15	66
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	35	4	45	4	48	0	—	0	11	43
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	21	3	31	0	—	1	16	0	7	24
	70	0	—	0	—	1	10	1	15	2	10	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	5	12
	60	0	—	0	—	0	—	1	5	2	14	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	11
	50	0	—	0	—	0	—	2	8	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	9
	40	0	—	0	—	1	10	1	8	1	10	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	3	9
	30	0	—	0	—	0	—	0	—	1	9	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	9
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	18	11	2	9	1	10	1	6	0	—	0	—	0	—	0	—	1	6	1	5	1	5	3	6	0	28	9
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	3	9	3	11	3	8	4	11	2	8	1	10	3	6	1	6	0	—	1	3	1	3	6	10	0	28	9
	700	5	13	1	6	2	9	0	—	1	8	0	—	0	—	3	8	7	15	2	14	3	11	2	14	0	26	12
	600	1	7	0	—	0	—	1	4	0	—	1	3	0	—	2	25	8	14	2	30	4	15	7	19	0	26	16
	500	1	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	23	6	36	10	27	2	24	0	24	27
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	32	6	42	9	39	3	42	0	23	39
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	42	3	31	5	74	10	52	1	40	0	20	53
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	42	7	59	7	54	2	50	0	17	55
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	35	3	90	9	61	2	72	0	17	63
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	39	6	55	8	56	0	—	0	16	51
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	16	4	24	5	26	0	—	0	12	23
	70	0	—	0	—	1	10	0	—	1	13	0	—	0	—	0	—	0	—	1	15	1	7	1	10	0	5	11
	60	1	22	0	—	0	—	0	—	1	2	1	10	0	—	0	—	0	—	0	—	1	16	0	—	0	4	12
	50	0	—	1	12	1	24	0	—	1	2	0	—	0	—	0	—	0	—	0	—	1	11	0	—	0	4	12
	40	0	—	0	—	1	12	1	3	1	7	0	—	1	4	0	—	0	—	0	—	0	—	0	—	0	4	6
	30	1	6	0	—	1	6	2	19	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	4	12
	20	0	—	0	—	0	—	1	5	0	—	0	—	0	—	1	5	0	—	0	—	0	—	0	—	0	2	5
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — NOVEMBER 1971

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

The prevailing weather was rather cold withsubnormal temperatures most of the month. Two light heat waves were experienced in the periods (10th — 13th) and (27th — 29th). The second heat wave yielded the highest maximum air temperature for the month (28.9°C) on the 29th.

The extreme maximum soil temperature washigher by 0.4°C than last November at 2 cm. depth, and lower at all depths between 5 and 100 cm. with departures between 0.1° and 0.9°C. The extreme minimum soil temperature was lower than last November at all depths between 2 and 100 cm. with departures between 0.4°C at20 cm. and 1.4°C at 100 cm.

The mean daily actual sunshine duration was lower than the corresponding value of November 1970 by 0.4 hour, the mean daily Pan evaporation was higher by 0.30 mm., and the mean daily wind speed at 1.5 met. was the same as for November 1970.

TAHRIR — NOVEMBER 1971

For the month as a whole the mean dailyair temperature was below normal, while the mean daily relative humidity was above normal. The total monthly rainfall was only 0.5 mm. against 4.9 mm. for normal.

The prevailing weather was rather cold withsubnormal temperatures in general, apart from a heat wave from the 26th till the end of the month yielding the highest maximum air temperature for the month (29.8°C) on the 30th together with the lowest relative humidity (40%).

The extreme maximum soil temperature waslower than last November at all depths between 2 and 50 cm., and was the same at 100 cm., thedepartures ranged between 2.7°C at 2 cm. and 0.3°C at 5 cm. The extreme minimum soil temperature was lower than last November at 2 and 5 cm. depths with departures not exceeding 0.6°C, and was higher than last November at deeper depths between 10 and 100 cm. with departures between 1.7°C at 20 cm. and 0.1°C at 100 cm.

The mean daily values of actual sunshine duration, pan evaporation and wind speed at 1.5 met. were all lower than the corresponding values of November 1970 by 0.7 hour, 0.54 mm. and 0.4 m./sec. respectively.

BAHTIM — NOVEMBER 1971

For the month as a whole the mean dailyair temperature was lower than the corresponding value of last November, while the mean daily relative humidity was higher. The total monthly rainfall was only 0.2 mm. against 5.4 mm. for last November.

Rather cold weather prevailed the whole month excluding a light heat wave in the last three days yielding the highest maximum air temperature for the month (28.6°C) on the 30th.

The extreme maximum soil temperature waslower than last November at depths between 2 and 20 cm., and was higher at 50 & 100 cm.;the departures ranged between 0.2° and 1.0°C. The extreme minimum soil temperature was higher than last November at 2 & 20 cm. depths with departures of 1.3°C & 0.6°C respectively. At 5, 10, 50 & 100 cm. depths the extreme soil minima were lower than last November with departures between 0.2° and 1.0°C.

The mean daily value of actual sunshine duration, pan evaporation and wind speed at 1.5 met. were lower than the corresponding values of November 1970 by 0.3 hour, 0.02 mm. and 0.3 m./sec respectively

KHARGA — NOVEMBER 1971

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

The month was characterized by two rather cold spells in the periods (1st-11th) and (17th-25th) and two heat waves in the periods (13th-16th) and (26th-30th). The lowest maximum air temperature for the month was 22.0°C reported on the 23rd and the highest maximum air temperature was 33.5° C reported on the 15th.

The extreme maximum soil temperature was higher by 1.0° C than last November at 2 cm. depth and was the same at 5 cm. At deeper depths between 10 and 100 cm. the extreme soil maxima were lower than last November with slight departures between 0.2° and 0.4° C. The extreme minimum soil temperatures were lower than last November at all depths between 2 and 100 cm. with slight departures between 0.2° and 0.5° C.

The mean daily values of actual sunshine duration, pan evaporation and wind speed at 1.5 met. were all lower than the corresponding values of November 1970 by 0.3 hour, 0.38 mm., and 0.1 m./sec. respectively.

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

NOVEMBER — 1971

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. . .	22.6	12.4	17.0	14.8	19.1	24.0	24.0	24.0	23.8	16.3	5.2	0.2	0.0	0.0	0.0	0.0
Tahrir	25.3	9.6	16.4	12.9	19.9	24.0	24.0	24.0	21.2	13.0	6.9	0.4	0.0	0.0	0.0	0.0
Bahtim	24.0	9.0	16.0	12.5	19.5	24.0	24.0	24.0	20.8	12.3	6.1	0.5	0.0	0.0	0.0	0.0
Kharga	27.4	11.2	19.6	16.1	23.1	24.0	24.0	23.8	22.6	18.4	11.1	4.2	0.8	0.0	0.0	0.0

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

NOVEMBER — 1971

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	Value
Mersa Matruh. . .	28.9	29	18.0	22	16.0	15	8.4	22	7.8	22	—	—
Tahrir	29.8	30	19.6	22	13.8	16	5.9	24	4.2	24	—	—
Bahtim	28.6	30	18.8	22	12.8	16	5.5	24	2.2	24	—	—
Kharga	33.5	15	22.0	23	17.4	1	3.0	24	1.0	24	—	—

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

NOVEMBER — 1971

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 Possibly monthly	%	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 U.T.	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date
Mersa Matruh. .	261.0	217.3	317.6	68	71	55	24	26	10.2	10.7	16.4	12	4.5	27	6.2	5.24	19.3	7.8	18
Tahrir	261.4	236.7	319.2	74	81	59	40	30	11.2	12.7	16.5	15	6.0	23	3.5	3.11	0.5	0.3	17
Bahtim	274.9	234.3	320.1	73	70	43	25	14	9.2	9.2	14.0	26	5.2	23	4.7	4.05	0.2	0.2	5
Kharga	360.0	290.9	328.5	89	39	26	10	13	6.4	6.6	11.0	1	3.0	12.14	11.2	9.00	0.0	0.0	—

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

NOVEMBER — 1971

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	29.2	27.3	24.6	22.4	22.7	23.8	24.4	—	—	—	—	—	—	—	—	—
	L	9.5	10.0	11.6	14.5	17.4	20.6	22.7	—	—	—	—	—	—	—	—	—
Tahrir	H	33.7	31.8	27.1	24.7	23.8	25.2	26.5	27.0	—	—	—	—	—	—	—	—
	L	10.6	11.2	13.2	16.7	19.1	21.3	23.7	25.2	—	—	—	—	—	—	—	—
Bahtim	H	35.3	29.2	26.9	25.4	26.6	27.6	27.8	26.9	—	—	—	—	—	—	—	—
	L	11.4	11.8	15.4	20.1	22.7	24.3	26.4	26.5	—	—	—	—	—	—	—	—
Kharga . . .	H	37.9	32.5	28.2	26.6	28.0	29.7	30.5	30.2	—	—	—	—	—	—	—	—
	L	6.2	10.0	14.1	19.0	23.7	26.6	28.9	29.6	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

NOVEMBER — 1971

Station	Wind Speed m/sec at 1½ m			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.	3.8	3.3	4.4	30	25	11	6	0	0	0	42	17
Tahrir	1.5	1.0	1.9	26	10	3	1	0	0	0	37	22
Bahtim	1.7	0.9	2.4	25	6	1	1	0	0	0	34	22
Kharga . . .	3.4	2.3	4.5	27	13	5	0	0	0	0	28	2,3,4

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MONTHLY WEATHER REPORT

VOLUME 14 NUMBER 12

DECEMBER, 1971

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

THE EGYPTIAN METEOROLOGICAL AUTHORITY
CAIRO

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

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

Orders for publications should be addressed to :

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

THE DAILY WEATHER REPORT

This report is issued daily by the Meteorological Authority since the year 1901. It includes surface and upper air observations carried out by the relevant networks of the Republic at the principal hours of observations.

As from January 1968 this report was revised to include a condensed representative selection of surface and upper air observations besides the 1200 U.T. surface & 500 mb charts.

As from 1st January 1972, the Daily Weather Report will not be issued or distributed because it does not serve no longer any good purpose as it used to be in the past. The Meteorological Authority is ready to supply the recipients of the Report with any information used to be included in it, if they so desire.

THE MONTHLY WEATHER REPORT

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

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

THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT

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

THE ANNUAL REPORT

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

CLIMATOLOGICAL NORMALS FOR EGYPT

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

METEOROLOGICAL RESEARCH BULLETIN

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

TECHNICAL NOTES

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

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Note : For explanatory notes on tables please refer to Volume 14. Number 1 (January 1971).

GENERAL SUMMARY OF WEATHER CONDITIONS

DECEMBER 1971

Remarkably cold intervened with two short mild spells; abnormally rainy in the north.

GENERAL DESCRIPTION OF WEATHER

The prevailing weather in this month was remarkably cold and mainly during the second half of the month when temperatures were appreciably subnormal. The month was intervened with two mild spells in the first five days of the month and on the 11th.

Weather was abnormally rainy in the northern parts of the country till Cairo area. The daily rain was heavy and associated with thundery activity on the 17th and 22nd.

Early morning mist and fog developed in several occasions over scattered places in Delta, Canal and Cairo areas.

Rising sand was reported in some days over few localities mainly in Upper Egypt.

PRESSURE DISTRIBUTION

The most outstanding pressure patterns over the synoptic surface charts during this month were :

— The Atlantic anticyclone and its extensions over Europe and the Mediterranean.

— Deep low pressure systems passing through North Europe and Russia.

— Secondary Mediterranean depressions.

Over the 700 mb & 500 mb. levels, the most important features of pressure distribution were :

— Two deep upper lows over North Atlantic and North Russia and their southward extensions through middle latitudes.

— Transits of secondary upper troughs through East Mediterranean on the 8th, 13th, 18th, 23rd, 27th & 31st.

— Upper high pressure belt over the subtropical latitudes.

During this month, five Mediterranean depressions were distinguished.

The first Mediterranean depression appeared over Italy & Central Mediterranean on the 1st. It moved slowly northeastwards reaching the Black Sea area on the 5th, when a depression developed over Cyprus which deepened on the 6th, and then moved afterwards towards Iraq.

The second Mediterranean depression originated over Central Mediterranean on the 9th. It moved eastwards till the 11th, then it crossed East Mediterranean on the 12th and continued its track northeastwards.

The third Mediterranean depression developed over Cyprus on the 17th and moved rapidly to the east the next day.

The fourth depression appeared over Asia Minor on the 21st. It moved towards Cyprus where it deepened on the 22nd, then it continued its track afterwards to the east while filling.

The fifth and last Mediterranean depression during this month developed over Cyprus on the 26th. It deepened on the 27th, and then it moved eastwards the next day while filling.

The barometric pressure over Egypt was influenced most of this month by the extension of the Atlantic anticyclone over the Mediterranean area. In addition it was interrupted by the above mentioned five transits of Mediterranean depressions through East Mediterranean. Accordingly the barometric pressure experienced five pronounced oscillations with minima round the 7th, 11th, 17th, 22nd & 27th respectively.

SURFACE WIND

The prevailing winds during this month were generally light to moderate NWly and changed to SW over the northern parts in few days. Winds were fresh/strong occasionaly during several days in scattered localities mainly in the Mediterranean, Red Sea and Western Desert districts.

Gales were reported at Sidi Barrani & M. Matruh on the 22nd, Ras El Hikma on the 10th.

TEMPERATURE

Maximum air temperatures were markedly below normal during the whole month, apart from the two mild spells in the period (1st-5th) and on the 11th. The departures of maximum temperatures below normal were appreciable in particular during the second half of the month. Maximum air temperature values ranged most days of the month between 16°C & 25°C in the northern and middle parts, and between 18°C & 30°C in the southern parts.

The absolute maximum air temperature for Egypt in the month was 34.8°C reported at Kom Ombo on the 3rd.

Minimum air temperatures oscillated moderately round normal in the northern parts and were below normal most of the month in the middle and southern parts. It is worthy to mention that minimum temperatures approached 0°C in several days during the second half of the month in scattered localities of the Western Desert and Upper Egypt districts. At Aswan in particular minimum temperature attained a record (3.2°C) on the 29th. Minimum air temperature values ranged most of the month between 7°C & 16°C in the northern parts and between 3°C & 13°C in the middle and southern parts.

The absolute minimum air temperature for Egypt this month was — 1.0°C reported at Dakhla on the 29th.

PRECIPITATION

This month was characterized by abnormal high monthly rainfall amounts in the northern parts up till Cairo area.

Light to moderate rain fell over the Mediterranean district during many days of the month, and extended in few days southwards to Lower Egypt & Cairo districts.

The daily rain was heavy and associated with thunderstorms on the 17th & 22nd.

The highest monthly rainfall was 78.1 mm reported at Alexandria.

The highest daily rainfall was 26.3 mm reported at Alexandria on the 22nd.

Cairo, July 1972

Chairman (M. F. TAHA)

Board of Directors

SURFACE DATA

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

DECEMBER 1971

STATION	Atmospheric Pressure (m's) M.S.L.		Air Temperature °C									Relative Humidity %		Bright Sunshine Duration (Hours)			Piche Evaporation (mms.) Mean
			Maximum		Minimum			Dry Bulb		Wet Bulb							
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average	$\frac{A+B}{2}$	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Total Actual	Total Possible	%	
Sallum	1019.9	+2.9	19.1	—1.4	10.6	—0.4	14.8	14.5	—1.3	10.6	—1.1	58	— 1	—	—	—	5.8
Mersa Matruh (A)	1020.9	+3.2	18.4	—1.4	11.0	+0.4	14.7	14.7	+0.2	11.9	+0.5	70	+ 2	167.4	314.0	53	5.3
Alexandria (A)	1020.2	+2.7	19.0	—1.5	11.0	—0.1	15.0	14.9	—0.4	11.9	—0.8	68	— 4	170.8	315.6	54	4.7
Port Said (A)	1018.8	+1.5	19.0	—0.8	11.7	—1.9	15.4	14.7	—1.6	11.8	—1.9	69	— 4	158.9	315.6	50	4.7
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	1020.3	+3.1	19.1	-2.2	8.1	—0.1	13.6	13.0	—1.7	10.5	—1.2	72	+ 5	175.4	316.8	55	2.2
Cairo (A)	1020.2	+2.2	19.2	—1.5	10.4	0	14.8	14.5	—0.9	11.2	—0.3	64	+ 2	—	—	—	7.3
Fayoum	—	—	20.6	—1.3	8.2	—0.2	14.4	13.8	—0.6	11.1	+0.3	70	+ 9	—	—	—	2.9
Minya (A)	1020.5	+2.2	20.5	—1.5	6.6	—0.3	13.5	12.9	—0.8	9.8	—0.3	65	+ 3	233.9	322.9	73	4.3
Assyout (A)	1019.2	+1.2	20.7	—1.6	7.9	—0.9	14.3	13.7	—1.5	9.7	—0.5	56	+ 7	—	—	—	6.3
Luxor (A)	1018.9	+2.0	23.5	—1.3	6.5	—1.1	15.0	14.5	—0.5	10.2	—0.9	54	+ 1	—	—	—	4.2
Aswan (A)	1019.1	+2.7	23.4	—2.5	9.1	—1.0	16.2	15.8	—2.0	9.7	—1.2	40	+ 4	—	—	—	11.2
Siwa	1021.3	+2.9	20.8	—0.5	7.6	+1.5	14.2	13.7	+0.1	10.0	+0.8	69	+14	219.4	319.9	68	6.2
Bahariya	1021.3	+3.0	20.6	—1.0	7.1	+0.4	13.8	13.4	—1.4	9.4	—0.6	56	+ 6	—	—	—	5.0
Farafra	1022.9	+2.9	19.7	—2.3	5.1	—0.9	12.4	12.0	—1.5	8.3	—0.2	57	+11	—	—	—	6.5
Dakhla	1021.2	+3.9	21.7	—1.6	5.3	—0.8	13.5	13.0	—1.5	8.2	—0.6	47	+ 3	—	—	—	8.0
Kharga	1020.3	+2.3	22.5	—1.5	7.8	—0.2	15.2	15.2	0.0	9.4	—0.2	46	0	295.5	329.2	90	8.3
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	1018.9	+2.5	21.4	—1.1	10.9	—0.8	16.2	15.8	—1.4	11.4	—1.2	56	+ 1	(262.8)	(309.4)	(85)	8.5
Quseir	1018.1	+1.8	21.7	—2.4	14.2	—1.6	18.0	17.9	—2.0	12.6	—2.4	59	+ 6	—	—	—	9.2

Note : The actual number of sunshine records at Hurghada was 29 days

Table A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

DECEMBER — 1971

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	23.2	9	15.0	22	0	0	0	0	0	10.0	—	14.0	5	6.9	24	13	0	0	0
Mersa Matruh . (A)	25.4	10	14.8	22	1	0	0	0	0	10.3	—	17.1	10	8.2	31	8	0	0	0
Alexandria . . (A)	24.4	1	13.8	22	0	0	0	0	0	10.3	—	15.8	1	7.0	9	12	0	0	0
Port Said . . (A)	25.6	3	11.6	22	2	0	0	0	0	11.4	—	18.5	2	8.2	23	9	0	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	26.6	1	11.7	22	2	0	0	0	0	—	—	13.0	11	3.5	28	24	2	0	0
Cairo	27.8	11	13.4	22	4	0	0	0	0	—	—	15.8	11	6.0	28	15	0	0	0
Fayoum	29.2	1	13.1	22	6	0	0	0	0	5.1	—	14.8	3	2.6	28	23	2	0	0
Minya . . . . (A)	28.2	11	16.0	22	6	0	0	0	0	3.8	—	13.0	3	2.0	19	25	11	0	0
Assyout. . . . (A)	31.0	11	15.3	23	6	1	0	0	0	5.2	—	15.3	1	3.5	19	23	5	0	0
Luxor . . . . (A)	33.4	3	15.4	23	8	5	0	0	0	1.8	—	13.4	1	0.7	29	24	9	0	0
Aswan . . . . (A)	34.0	1	17.2	28	10	6	0	0	0	—	—	16.0	1	3.2	29	19	2	0	0
Siwa	26.2	10	17.4	17	5	0	0	0	0	6.1	—	15.2	10	1.1	31	24	4	0	0
Bahariya	28.2	11	15.9	22	6	0	0	0	0	6.6	—	16.4	10	1.8	30,31	24	11	0	0
Farafra	27.3	11	16.2	17,22	4	0	0	0	0	4.8	—	12.6	11	— 0.7	29	29	15	2	0
Dakhla	32.4	3	16.0	28	7	5	0	0	0	5.3	—	10.9	2,6	— 1.0	29	28	12	1	0
Kharga	32.2	2	16.8	28	7	3	0	0	0	5.6	—	18.8	1	0.8	29	24	7	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	27.5	2	16.8	28	5	0	0	0	0	—	—	15.8	2	7.2	28	12	0	0	0
Qusier	27.0	2	16.5	28	6	0	0	0	0	11.8	—	19.5	2	9.3	18	2	0	0	0

Table A 3.—SKY COVER AND RAINFALL

DECEMBER — 1971

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	3.6	4.0	4.2	3.9	3.9	3.3	—17.1	1.9	22	0	2	2	0	0	0	0
Mersa Matruh (A)	3.4	5.3	5.4	3.5	4.3	33.1	— 0.8	14.6	22	3	9	4	2	2	0	0
Alexandria (A)	5.9	5.9	6.1	5.3	5.7	78.1	+22.0	26.3	22	3	14	11	3	3	1	0
Port Said (A)	4.0	3.5	4.3	4.3	3.9	42.8	+23.9	10.1	17	0	15	8	4	1	0	0
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	2.1	4.4	5.3	2.7	3.5	32.2	+22.2	17.1	17	1	8	6	2	1	0	0
Cairo (A)	3.1	3.9	4.7	2.9	3.7	23.5	+15.5	18.7	22	2	6	2	1	1	0	0
Fayoum	—	3.5	4.6	3.4	—	6.2	+ 1.6	6.2	22	3	1	1	1	0	0	0
Minya (A)	1.5	2.6	3.5	1.8	2.3	Tr.	— 0.7	Tr.	16,18,22	3	0	0	0	0	0	0
Assyout (A)	0.6	1.9	2.0	0.8	1.2	Tr.	0.0	Tr.	18,22	2	0	0	0	0	0	0
Luxor (A)	0.6	1.1	1.7	0.8	1.1	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Aswan (A)	0.4	1.4	1.7	0.9	1.2	0.0	— 0.2	0.0	—	0	0	0	0	0	0	0
Siwa	2.3	3.4	4.5	2.4	3.1	Tr.	— 2.1	Tr.	10	1	0	0	0	0	0	0
Bahariya	1.2	2.3	3.4	2.1	2.1	Tr.	— 1.2	Tr.	22	1	0	0	0	0	0	0
Farafra	—	1.3	2.2	1.2	—	0.5	+ 0.2	0.5	22	0	1	0	0	0	0	0
Dakhla	0.0	0.7	1.1	0.2	0.4	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0
Kharga	0.7	1.2	1.7	0.7	1.1	Tr.	— 0.3	Tr.	22	1	0	0	0	0	0	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0.0	2.2	2.3	1.3	1.7	Tr.	— 2.2	Tr.	22	1	0	0	0	0	0	0
Quseir	0.6	1.9	2.6	1.3	1.7	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0

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

DECEMBER — 1971

Station	Precipitation				Frost	Thunderstorm	Mist Vis ≥ 1000 Metres	Fog Vis < 10000 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	1	0	0	4	1
Mersa Matruh (A)	9	0	0	0	0	1	0	0	0	0	5	5	1	3	1
Alexandria (A)	14	0	0	0	0	2	2	1	0	0	1	1	0	0	12
Port Said (A)	15	0	0	0	0	1	0	0	0	0	1	0	0	6	5
El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	8	0	0	0	0	1	5	0	1	0	2	0	0	5	3
Cairo (A)	6	0	0	0	0	0	9	3	15	1	9	1	0	3	1
Fayoum	1	0	0	0	0	0	2	0	0	0	0	0	0	—	—
Minya (A)	0	0	0	0	0	0	10	2	7	0	4	0	0	14	0
Assyout (A)	0	0	0	0	0	0	0	3	0	0	2	0	0	23	0
Luxor (A)	0	0	0	0	0	0	0	0	18	0	7	0	0	22	0
Aswan (A)	0	0	0	0	0	0	0	0	2	0	0	2	0	25	0
Siwa	0	0	0	0	0	0	0	0	0	0	4	0	0	7	1
Bahariya	0	0	0	0	0	0	0	1	0	0	2	0	0	17	1
Farafra	1	0	0	0	0	0	0	0	0	0	4	0	0	—	—
Dakhla	0	0	0	0	0	0	0	0	0	0	3	0	0	30	0
Kharga	0	0	0	0	0	0	0	0	0	0	1	0	0	22	0
Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada	0	0	0	0	0	0	0	0	0	0	5	1	0	18	0
Quseir	0	0	0	0	0	0	0	0	0	0	1	0	0	22	0

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

DECEMBER — 1971

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	044 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions
Sallum	13	0	1	1-10	35	32	20	31	10	10	11	11	16	91	116	80	463
				11-27	3	4	0	1	0	0	1	14	7	94	104	38	266
				28-47	1	0	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	**39**	**36**	**20**	**32**	**10**	**10**	**12**	**25**	**23**	**185**	**220**	**118**	**730**
Mersa Matruh	29	0	0	1-10	52	21	22	10	4	11	15	28	42	27	23	23	278
				11-27	113	8	5	2	0	7	11	13	85	64	28	77	413
				28-47	3	0	0	0	0	0	7	0	3	2	1	8	24
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**168**	**29**	**27**	**12**	**4**	**18**	**33**	**41**	**130**	**93**	**52**	**108**	**715**
Alexandria	0	0	3	1-10	44	73	12	5	24	35	26	86	39	18	32	39	433
				11-27	17	26	0	0	2	11	2	28	25	33	65	99	308
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**61**	**99**	**12**	**5**	**26**	**46**	**28**	**114**	**64**	**51**	**97**	**138**	**741**
Port Said	39	0	0	1-10	47	44	32	20	18	4	11	53	129	98	56	74	586
				11-27	6	0	3	1	1	3	2	16	15	31	18	23	119
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**53**	**44**	**35**	**21**	**19**	**7**	**13**	**69**	**144**	**129**	**74**	**97**	**705**
Tanta	59	0	1	1-10	73	19	3	10	9	3	11	10	75	168	53	54	488
				11-27	11	20	2	3	1	10	13	2	36	57	26	15	196
				28-47	0	0	0	0	0	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**	**39**	**5**	**13**	**10**	**13**	**24**	**12**	**111**	**225**	**79**	**69**	**684**
Cairo	72	0	4	1-10	13	45	45	9	21	23	77	64	72	87	30	11	497
				11-27	12	18	5	5	4	8	20	35	22	21	5	16	171
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**25**	**63**	**50**	**14**	**25**	**31**	**97**	**99**	**94**	**108**	**35**	**27**	**668**
Fayoum	8	13	2	1-10	116	95	15	2	12	32	39	67	98	78	86	59	699
				1-27	2	13	0	0	0	0	1	2	3	0	1	0	22
				28-47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**118**	**108**	**15**	**2**	**12**	**32**	**40**	**69**	**101**	**78**	**87**	**59**	**721**
Minya	12	0	3	1-10	254	46	3	2	2	25	61	20	14	13	43	119	602
				11-27	75	7	0	0	0	1	6	2	2	5	5	22	125
				28-47	2	0	0	0	0	0	0	0	0	0	0	0	2
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**331**	**53**	**3**	**2**	**2**	**26**	**67**	**22**	**16**	**18**	**48**	**141**	**729**

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

DECEMBER — 1971

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												
					345 / 014	015 / 044	845 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	All directions
Assyout	6	0	69	1–10	13	1	4	14	9	30	7	1	15	179	192	90	555
				11–27	12	2	0	0	6	3	2	0	2	21	16	50	114
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**25**	**3**	**4**	**14**	**15**	**33**	**9**	**1**	**17**	**200**	**208**	**140**	**669**
Luxor	9	0	0	1–10	30	41	38	42	26	67	86	44	45	92	101	63	675
				11–27	0	0	0	0	0	0	0	2	9	26	21	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	**30**	**41**	**38**	**42**	**26**	**67**	**86**	**46**	**54**	**118**	**122**	**65**	**735**
Aswan	5	0	0	1–10	189	78	3	5	1	2	2	0	7	11	28	124	450
				11–27	57	27	0	0	0	0	0	0	0	6	47	152	289
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**246**	**105**	**3**	**5**	**1**	**2**	**2**	**0**	**7**	**17**	**75**	**276**	**739**
Siwa	52	25	7	1–10	46	33	25	46	36	24	15	6	28	147	119	67	592
				11–27	9	0	0	0	1	2	14	6	0	4	14	18	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	**55**	**33**	**25**	**46**	**37**	**26**	**29**	**12**	**28**	**151**	**133**	**85**	**660**
Dakhla	47	7	0	1–10	30	14	6	32	27	18	51	45	70	124	118	123	658
				11–27	0	0	0	0	0	3	0	0	0	0	6	23	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	**30**	**14**	**6**	**32**	**27**	**21**	**51**	**45**	**70**	**124**	**124**	**146**	**690**
Kharga	7	21	0	1–10	186	126	29	8	6	12	12	3	5	15	59	115	576
				11–27	75	33	0	0	0	0	0	0	0	1	5	26	140
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**261**	**159**	**29**	**8**	**6**	**12**	**12**	**3**	**5**	**16**	**64**	**141**	**716**
Hurghada	11	0	6	1–10	29	16	3	0	8	10	8	5	9	10	114	64	276
				11–27	103	2	0	0	0	0	0	0	0	1	179	166	451
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**132**	**18**	**3**	**0**	**8**	**10**	**8**	**5**	**9**	**11**	**293**	**230**	**727**
Quseir	2	0	12	1–10	53	69	22	14	2	0	2	2	4	9	83	217	477
				11–27	102	99	2	0	0	0	0	0	0	0	13	35	253
				28–47	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	**157**	**168**	**24**	**14**	**2**	**0**	**2**	**2**	**4**	**9**	**96**	**252**	**730**

UPPER AIR CLIMATOLOGICAL DATA

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

DECEMBER 1971

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	23	1020m.b.	1024m.b.	*1012m.b.	23	13.3	17.2	10.6	23	9.4
	1000	23	191	231	153	23	14.1	17.5	10.7	23	9.2
	850	23	1542	1597	1482	23	5.1	13.7	— 1.0	23	0.4
	700	23	3114	3212	3040	23	— 1.5	4.0	— 9.2	23	—16.3
	600	23	4322	4451	4235	23	— 9.2	— 2.7	—14.7	23	—23.2
	500	22	5704	5869	5599	22	—18.6	—13.8	—23.7	22	—29.8
	400	21	7329	7525	7197	21	—30.9	—21.0	—35.7	21	—42.3
	300	21	9303	9528	9168	21	—45.5	—42.3	—51.0	20	—55.0
	250	20	10499	10735	10378	20	—52.9	—48.1	—57.5	18	—62.8
	200	18	11914	12159	11800	18	—58.0	—55.0	—63.5	8	—67.5
	150	18	13708	13935	13606	18	—61.5	—58.7	—63.8	2	—76.4
	100	15	16211	16421	16108	15	—64.8	—59.6	—69.4	—	—
	70	15	18387	18594	18294	15	—64.4	—59.3	—69.5	—	—
	60	12	19378	19550	19250	12	—62.4	—58.5	—66.8	—	—
	50	12	20460	20672	20380	12	—61.4	—58.7	—66.0	—	—
	40	11	21935	22100	21720	11	—59.5	—56.6	—66.0	—	—
	30	10	23692	23917	23532	10	—56.3	—53.0	—64.4	—	—
	20	6	26288	26542	26027	6	—53.8	—49.5	—62 1	—	—
	10	1	30910	—	—	1	—45.6	—	—	—	—
Helwan 0000 UT	Surface	31	*1003m.b	*1011m.b.	*995m.b.	31	11.7	19.4	4.8	31	6.9
	1000	31	168	237	100	26	11.9	18.0	4.8	26	6.8
	850	31	1519	1569	1464	29	5.4	16.7	— 2.6	29	— 1.6
	700	31	3087	3177	2966	31	— 1.3	4.6	— 8.9	31	—13.8
	600	31	4302	4416	4145	31	— 8.4	— 3.1	—16.1	31	—19.3
	500	31	5691	5826	5591	31	—18.2	—12.2	—27.0	31	—28.8
	400	31	7323	7553	7055	31	—30.9	—25.8	—40.5	31	—40.1
	300	30	9309	9494	9033	30	—44.2	—37 6	—50.0	30	—52.7
	250	30	10514	10705	10238	30	—51.6	—40.5	—56.6	30	—59.7
	200	30	11940	12138	11778	30	—57.8	—45.7	—63.6	21	—64.9
	150	30	13742	13968	13584	30	—60.8	—53.4	—67.1	8	—65.8
	100	28	16243	16474	16077	28	—64.9	—58.0	—69.9	—	—
	70	21	18403	18630	18207	20	—65.0	—62.1	—70.9	—	—
	60	16	19382	19590	19270	16	—63.7	—60.0	—68.0	—	—
	50	16	20466	20690	20362	16	—62.0	—58.4	—70.0	—	—
	40	11	21973	22040	21840	11	—58.8	—56.6	—60.4	—	—
	30	11	23695	23916	23587	11	—54.6	—52.0	—57.7	—	—
	20	5	26301	26561	26183	5	—51.8	—48.2	—54.1	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 0000 UT	Surface	27	*997m.b.	*1001m.b.	*992m.b	27	12.0	21.4	4.8	27	2.0
	1000	27	163	201	125	4	8.6	19.8	8.0	4	1.2
	850	27	1527	1564	1471	26	9.9	20.3	0.8	26	— 6.8
	700	25	3125	3198	3024	25	4.1	11.8	— 1.7	24	—16 7
	600	24	4357	4450	4242	24	— 3 5	1.8	— 9.2	24	—24 5
	500	23	5769	5877	5634	23	—12.8	— 8.9	—18.4	23	—32.3
	400	22	7426	7565	7266	21	—24.3	—19.8	—29.5	21	—39.8
	300	22	9464	9619	9280	21	—38.9	—32.8	—42.0	21	—52.9
	250	22	10687	10849	10503	22	—47.8	—42.9	—50.2	22	—60.5
	200	22	12140	12356	11949	22	—56.7	—53.7	—61.2	19	—73.2
	150	19	13930	14064	13758	19	—75.4	—59.1	—69.3	1	—75.6
	100	17	16365	16466	16206	17	—72.4	—67.1	—79.7	—	—
	70	8	18501	18570	18440	8	—72.7	—65.8	—79.2	—	—
	60	2	19510	19570	19450	2	—68 9	—66.2	—71 6	—	—
	50	2	20558	20612	20504	2	—63 4	—63.0	—63 9	—	—
	40	2	22050	22100	22000	2	—57.7	—57.4	—58.0	—	—
	30	2	23777	23832	23722	2	—55 0	—54.5	—55.4	—	—
	20	1	26452	—	—	1	—50.9	—	—	—	—
	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.

UPPER AIR CLIMATOLOGICAL DATA

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

DECEMBER 1971

Station	Pressure Surface (Millibar)	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 1200 UT	Surface	26	*1019m.b.	*1026m.b.	*1011m.b.	26	16.9	19.9	11.2	26	10.1
	1000	26	190	230	130	26	15.6	18.6	13.0	26	8.5
	850	26	1540	1584	1484	26	5.0	13.0	1.1	26	— 1.8
	700	26	3104	3184	3040	26	— 1.5	1.9	— 7.5	26	—14.8
	600	26	4315	4411	4243	26	— 9.1	— 5.9	—13.0	26	—21.4
	500	26	5703	5812	5617	26	—18.8	—14.5	—27.9	26	—30.5
	400	26	7333	7452	7269	26	—30.0	—26.9	—34.5	26	—39.7
	300	24	9317	9462	9198	24	—45.3	—41.1	—49.3	23	—54.3
	250	21	10523	10662	10395	21	—52.7	—49.6	—56.5	21	—60.6
	200	20	11938	12068	11811	19	—59.4	—54.5	—63.9	10	—65.5
	150	19	13739	13898	13631	18	—61.0	—56.3	—67.6	4	—66.4
	100	19	16250	16448	16140	19	—63.9	—58.6	—67.0	—	—
	70	18	18423	18638	18334	18	—62.8	—58.0	—66.4	—	—
	60	14	19388	19490	19240	14	—62.0	—58.0	—65.0	—	—
	50	14	20534	20657	20424	14	—60.9	—58.0	—67.9	—	—
	40	7	22033	22400	21600	7	—57.7	—55.9	—58.0	—	—
	30	7	23747	23927	23639	7	—53.8	—51.5	—56.7	—	—
	20	3	26411	26481	26354	3	—47.6	—46.3	—48.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	31	*1002m.b.	*1009m.b.	*993m.b.	31	17.8	28.8	9.4	31	7.0
	1000	31	161	213	84	23	17.2	26.0	13.0	23	6.3
	850	31	1520	1575	1417	30	6.8	19.6	0.6	30	— 1.7
	700	31	3094	3197	2976	31	— 0.7	7.8	— 8.9	31	—14.0
	600	31	4310	4438	4169	31	— 8.0	— 2.7	—17.7	31	—20.7
	500	31	5799	5856	5530	31	—17.4	—11.3	—27.4	31	—29.3
	400	30	7339	7528	7119	30	—29.2	—23.0	—36.3	30	—40.3
	300	30	9337	9566	9092	30	—43.1	—38.9	—47.5	29	—53.0
	250	30	10544	10791	10318	30	—50.4	—41.1	—54.4	30	—59.5
	200	29	11982	12229	11782	29	—54.8	—52.0	—60.9	24	—64.6
	150	28	13792	14010	13618	27	—59.9	—54.0	—66.0	10	—66.0
	100	25	16309	16519	16140	25	—63.8	—58.3	—69.0	—	—
	70	17	18494	18616	18340	17	—63.4	—57.1	—66.5	—	—
	60	11	19496	19600	19320	11	—62.4	—59.3	—65.9	—	—
	50	11	20593	20700	20430	11	—59.1	—54.1	—60.7	—	—
	40	8	22044	22200	21840	8	—55.4	—54.1	—57.8	—	—
	30	6	23858	23963	23671	6	—51.8	—47.0	—55.4	—	—
	20	3	26545	26608	26425	3	—47.7	—43.1	—51.2	—	—
	10	—	—	—	—	—	—	—	—	—	—
Aswan 1200 UT	Surface	27	*996m.b.	*1000m.b.	*990m.b.	27	22.2	32.8	15.8	27	2.6
	1000	27	156	193	105	—	—	—	—	—	—
	850	27	1535	1576	1481	27	10.8	19.8	2.3	27	—8.6
	700	26	3135	3204	3023	26	3.9	10.3	— 7.0	26	—18.2
	600	26	4373	4460	4216	26	— 3.3	2.5	—12.2	26	—24.3
	500	26	5799	5946	5581	25	—12.5	— 7.3	—23.0	25	—31.7
	400	26	7465	7592	7249	26	—23.9	—20.6	—26.7	24	—39.9
	300	25	9507	9614	9309	23	—38.8	—30.6	—41.0	23	—52.1
	250	22	10734	10875	10549	21	—47.4	—41.2	—50.0	21	—60.0
	200	22	12178	12330	12018	22	—57.6	—52.8	—67.2	19	—67.6
	150	20	13962	14111	13832	19	—63.9	—59.2	—69.5	2	—68.9
	100	15	16421	16532	16380	12	—70.2	—59.5	—74.9	—	—
	70	10	18529	18607	18492	10	—70.4	—65.6	—78.1	—	—
	60	7	19427	19510	19100	7	—66.5	—64.8	—67.9	—	—
	50	7	20597	20808	20523	7	—62.2	—60.0	—63.6	—	—
	40	3	22037	22060	22010	3	—57.9	—56.3	—59.9	—	—
	30	3	23784	23809	23741	3	—51.4	—49.1	—55.5	—	—
	20	2	26416	26453	26380	2	—47.4	—44.5	—53.3	—	—
	10	—	—	—	—	—	—	—	—	—	—

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

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

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

DECEMBER — 1971

	Station	Freezing Level									First Tropopause									Highest wind speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Direction (000—360)	Speed in Knots
0000 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	2639 (23)	746 (23)	— 9.3 (23)	4040	632	—11.8	1450	863	— 3.8	11161 (18)	206 (18)	—59.8 (18)	14220	137	—65.8	9500	290	—52.5	11201	230	250	150
	Helwan . . .	2493 (31)	759 (31)	— 7.2 (30)	3950	635	—13.9	1170	880	— 4.9	12663 (29)	183 (29)	—61.1 (29)	17350	87	—68.9	7140	395	—41.2	14310	164	275	148
	Aswan . . (A)	3511 (23)	670 (23)	—18.9 (23)	4600	590	—19.1	1600	840	— 5.7	14373 (9)	143 (9)	—68.4 (9)	16360	101	—76.7	12090	202	—60.0	9850	282	260	148
1200 U.T.		(N)	(N)	(N)							(N)	(N)	(N)										
	M. Matruh (A)	2558 (26)	752 (26)	— 8.0 (26)	3520	673	—16.5	1670	836	— 4.9	12559 (19)	186 (19)	—61.3 (19)	16258	100	—66.7	10950	231	—66.5	11649	210	265	148
	Helwan . . .	2717 (31)	738 (31)	— 9.0 (30)	4080	628	—11.8	1580	829	— 6.8	11983 (25)	209 (25)	—57.9 (25)	15330	118	—65.3	7320	392	—37.5	5860	486	305	150
	Aswan . (A)	3784 (26)	659 (26)	—21.0 (26)	4870	572	—20.8	1710	827	— 3.7	13284 (12)	170 (12)	—64.6 (12)	14900	128	—67.4	11570	221	—65.6	10700	249	260	155

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) DECEMBER 1971

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	4	12	1	1	1	7	0	—	0	—	0	—	2	4	2	16	7	13	1	8	1	15	2	21	2	23	11
	1000	6	18	2	7	0	—	0	—	0	—	1	13	1	8	0	—	1	36	4	24	4	16	1	23	1	21	17
	850	4	24	0	—	0	—	0	—	0	—	0	—	1	4	1	6	0	—	3	18	1	38	10	17	1	21	17
	700	6	28	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	32	5	24	3	22	3	35	0	21	28
	600	5	31	0	—	0	—	0	—	0	—	0	—	0	—	1	35	2	53	6	33	2	26	4	42	0	20	38
	500	4	31	1	32	0	—	0	—	0	—	0	—	0	—	0	—	3	58	6	49	3	42	2	47	0	19	44
	400	2	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	78	4	50	4	51	5	47	0	17	50
	300	2	34	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	104	6	75	4	56	3	52	0	16	64
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	92	4	69	3	53	3	34	0	12	61
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	67	4	54	0	—	0	6	59
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	67	3	43	0	—	0	4	49
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	30	1	38	0	—	0	2	34
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	71	0	—	0	1	71
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	27	0	—	0	1	27
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	0	—	0	1	16
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	15	0	—	0	—	0	1	15
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	35	0	—	0	—	0	1	35
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1200 U.T.	Surface	8	15	2	8	0	—	0	—	0	—	1	20	1	3	1	20	3	13	2	21	5	16	2	8	1	26	14
	1000	5	25	1	10	2	10	0	—	0	—	2	14	0	—	1	3	2	21	4	25	3	21	5	17	0	25	19
	850	3	19	1	18	0	—	0	—	1	6	0	—	1	7	1	16	3	23	4	9	5	20	6	21	0	25	17
	700	6	29	1	40	0	—	0	—	0	—	0	—	0	—	2	35	0	—	3	32	11	23	2	30	0	25	28
	600	3	47	1	39	0	—	0	—	0	—	0	—	0	—	1	30	1	29	4	35	9	39	6	31	0	25	36
	500	4	51	0	—	0	—	0	—	0	—	0	—	0	—	1	80	1	58	8	45	7	41	4	37	0	25	46
	400	3	65	0	—	0	—	0	—	0	—	0	—	6	—	0	—	2	64	9	62	7	44	4	37	0	25	55
	300	3	64	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	7	73	7	80	4	38	0	22	66
	250	1	46	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	109	4	84	8	67	2	64	0	16	72
	200	1	87	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	84	3	48	2	58	0	12	71
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	63	2	48	0	—	0	5	57
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	40	2	46	2	36	0	—	0	5	41
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	24	0	—	0	—	0	1	24
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	13	0	—	0	—	0	—	0	—	0	1	13
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	25	0	—	0	—	0	1	25
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	1	10
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	0	—	0	—	0	1	17
	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 case the wind has been observed during the month.

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

HELWAN (A) DECEMBER 1971

Time	Pressure Surface (Millibar.)	Wind between ranges of direction (000—360)°																								Number of Calm winds	Total Number of Observations (TN)	Mean Scalar wind Speed (Knots)
		345/014		015/044		045/074		075/104		105/134		135/164		165/194		195/224		225/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m			
Helwan 0000 UT	Surface	3	6	5	7	2	10	0	—	2	10	0	—	1	10	3	4	2	4	4	4	1	5	4	5	4	31	6
	1000	6	6	5	11	1	7	1	8	1	15	1	14	0	—	2	4	1	11	1	7	0	—	6	7	2	27	8
	850	5	12	3	12	0	—	0	—	0	—	1	25	1	25	1	14	1	18	4	6	5	16	10	17	0	31	15
	700	2	22	1	21	0	—	0	—	0	—	0	—	0	—	1	27	4	21	7	22	6	26	10	24	0	31	24
	600	5	26	0	—	0	—	0	—	0	—	0	—	0	—	1	18	2	41	11	34	7	30	5	29	0	31	29
	500	4	38	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	34	12	37	8	39	3	44	0	30	38
	400	2	65	2	29	0	—	0	—	0	—	0	—	0	—	0	—	1	52	15	44	5	42	4	52	0	29	45
	300	1	34	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	89	13	50	10	63	1	62	0	27	56
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	11	71	9	61	2	74	0	23	66
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	11	68	8	80	0	—	0	19	73
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	8	70	8	69	0	—	0	16	70
	100	0	—	0	—	0	—	0	—	0	—	1	11	0	—	0	—	1	38	5	76	1	69	1	37	0	9	59
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	28	0	—	3	35	1	75	0	—	0	5	43
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	25	1	72	0	—	0	4	36
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	16	2	65	1	36	0	—	0	4	46
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	40	1	42	0	—	0	3	40
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	24	0	—	—	—	0	—	0	—	0	1	24
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Helwan 1200 UT	Surface	3	8	2	15	0	—	0	—	4	2	3	5	1	15	2	9	3	5	5	6	0	—	6	9	2	31	7
	1000	5	8	3	15	1	16	1	1	0	—	0	—	1	3	1	5	3	7	4	4	1	10	2	10	1	23	8
	850	5	13	1	5	0	—	0	—	0	—	0	—	1	22	2	12	1	10	7	10	7	12	7	13	0	31	12
	700	2	24	1	31	0	—	0	—	0	—	0	—	0	—	2	23	1	23	5	23	13	23	7	24	0	31	24
	600	1	14	1	22	0	—	0	—	0	—	0	—	0	—	0	—	2	36	14	33	6	26	7	33	0	31	31
	500	2	44	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	40	9	38	7	60	7	34	0	29	43
	400	1	26	1	70	0	—	0	—	0	—	0	—	0	—	0	—	3	48	9	48	7	47	6	48	0	27	47
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	80	11	64	10	58	2	72	0	24	62
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	9	62	11	60	0	—	0	20	61
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	12	75	6	76	1	54	0	19	74
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	7	69	4	66	1	116	0	12	72
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	52	2	82	1	45	0	5	63
	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	20	0	—	0	—	0	1	20
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	31	0	—	0	—	0	1	31
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	29	0	—	0	—	0	—	0	1	29
	30	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	0	—	0	—	0	—	0	1	32
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	45	0	—	0	—	0	—	0	1	45
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

ASWAN (A) DECEMBER 1971

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		226/254		255/284		285/314		315/344				
		N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) m	N	(ff) N	N	(ff) m			
Aswan 0000 U.T.	Surface	14	11	3	10	0	—	0	—	1	3	0	—	0	—	0	—	0	—	0	—	4	12	5	14	0	27	11
	1000	-	10	0	—	0	—	0	—	0	—	0	—	0	—	0	-	0	—	0	—	0	—	0	—	0	4	10
	850	8	12	4	13	4	13	0	—	1	6	0	—	0	—	1	9	4	10	0	—	2	14	3	20	0	27	13
	700	2	43	0	—	1	17	1	25	3	8	0	—	0	—	0	—	2	12	6	26	5	22	5	18	0	25	21
	600	2	32	0	—	0	—	0	—	1	3	0	—	1	6	0	—	3	25	7	32	9	31	1	58	0	24	30
	500	0	—	0	—	0	—	1	2	0	—	0	—	1	6	0	—	3	41	8	51	8	46	2	24	0	23	42
	400	0	—	0	—	1	11	0	—	0	—	0	—	0	—	0	—	0	—	15	59	6	59	0	—	0	22	57
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	13	2	45	16	76	3	84	0	—	0	22	72
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	76	15	77	2	68	0	—	0	20	91
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	110	13	94	2	82	0	—	0	17	95
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	116	12	79	1	81	0	—	0	14	82
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	5	44	1	60	0	—	0	6	47
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	0	—	1	23	0	—	0	2	18
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	18	0	—	0	1	18
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	1	10
	40	0	—	0	—	0	—	1	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	8
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Aswan 1200 U.T.	Surface	13	13	9	11	0	—	0	—	0	—	0	—	1	3	0	—	0	—	0	—	1	10	3	11	0	27	12
	1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	850	5	16	1	10	4	12	2	12	3	10	0	—	0	—	0	—	2	7	2	15	3	11	5	15	0	27	13
	700	1	7	1	4	3	15	0	—	0	—	0	—	2	10	0	—	1	17	4	21	6	29	8	18	0	26	19
	600	0	—	0	—	1	13	0	—	0	—	0	—	0	—	2	14	2	23	7	35	11	30	3	13	0	26	27
	500	0	—	1	13	0	—	0	—	0	—	0	—	0	—	0	—	2	24	15	44	6	38	2	50	0	26	41
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	19	61	6	52	1	18	0	26	57
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	22	75	3	56	0	—	0	25	73
	250	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	81	17	92	2	50	0	—	0	21	87
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	104	14	97	3	64	0	—	0	18	89
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	107	11	72	2	82	0	—	0	14	76
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	46	6	50	2	33	0	—	0	9	46
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	19	0	—	0	—	0	3	19
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	0	—	0	—	0	1	17
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	10	0	—	0	—	0	1	10
	40	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	6	0	—	0	—	0	1	6
	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.

REVIEW OF AGRO-METEOROLOGICAL STATIONS

MERSA MATRUH — DECEMBER 1971

This month was rather normal as regards the mean air temperature and monthly rainfall, but more humid than normal.

The daily maximum air temperatures were below normal the whole month apart from two light warm spells on the 2nd & 10th; while the daily minimum air temperatures were mostly above normal. The second warm spell yielded the highest maximum air temperature for the month (25.4°C) on the 10th. The lowert maximum air temperature was 14.8°C reported on the 22nd, together with the maximum daily rainfall (14.6 mm.)

The extreme maximum soil temperatures were higher than last December at depths between 2 & 100 cm. apart from the 20 cm. depth where the value was the same and at 100 cm. depth where it was lower by 1.0° C; the departures varied between 2.0° C at 2 cm. and 0.1° C at 50 cm.

The extreme minimum soil temperatures were higher than last December at depths between 2 & 20 cm. with departures between 2.1° at 10cm. and 0.6° C at 20 cm. At 50 & 100 cm. depths the extreme soil minima were lower than last December by 0.5° & 0.9° C respectively.

The mean daily actual sunshine duration was less than last December by 0.5 hour. The mean daily wind speed at 1.5 m. and pan evaporation were more than last December by 0.7 m./sec. and 0.06 mm. respectively.

TAHRIR — DECEMBER 1971

This month was cooler, more humid and more rainy than average. The total monthly rainfall was 19.4 mm. against 8.2 mm. for average.

The daily maximum and minimum air temperatures were below average, apart from two light warm spells in the periods (1st-3rd) and (10th & 11th). The lowest maximum air temperature for the month was 12.2°C reported onthe 22nd together with the maximum daily rainfall (10.4 mm). The highest maximum air temperature was 27.6°C reported on the 1st.

The extreme maximum soil temperatures were higher than last December at all depths with departures between 4.8°C at 2 cm. and 0.5°C at100 cm. The extreme minimum soil temperatures were higher than last December at all depthsapart from 20 & 100 cm. depths where the values were lower by 0.2°C & 0.1°C; the departures varied between 2.2°C at 2 cm and 0.2°C at 50 cm.

The mean daily actual sunshine duration was less by 2.1 hour than December 1970. The daily mean wind speed at 1.5 m. and pan evaporation were more than December 1970 by 0.5 m./sec. and 0.33 mm respectively.

BAHTIM — DECEMBER 1971

For the month as a whole the mean dailyair temperature was slightly higher than last December and the mean daily relative humiditywas the same. The total monthly rainfall was 17.2 mm. against 0.3 mm. for December 1970.

The daily maximum air temperatures were below average all the month excluding two light warm spells in the periods (1st-2nd) and (10th-11th). The highest maximum air temperature for the month was 27.5°C reported on the 11th. The lowest maximum air temperature was 12.4°C reported on the 22nd, together with the maximumdaily rainfall (9.7 mm). The absolute minimum air temperature at 5 cm. above ground fell below 0°C on the 28th when its value was — 0.8°C.

The extreme maximum soil temperatures were lower than last December at 2 & 100 cm. depths by 1.5°C & 0.4°C respectively. At all depths between 5 & 50 cm the extreme soil maxima were higher than last December with departures between 1.6°C at 10 cm. and 0.1°C at 50 cm. On the other hand the extreme soil minimum temperatures were higher than last December at 2 & 100 cm. by 0.4°C & 0.1°C ; and were lower at depths between 5 & 50 cm. with departures between 1.9°C at 10 cm. and 0.2°C at 50 cm.

The mean daily actual sunshine duration was less by 1.6 hour than December 1970. The mean daily wind speed at 1.5 met. and pan evaporation were more than December 1970 by 0.4 m./sec. and 0.10 mm. respectively.

KHARGA — DECEMBER 1971

This month was rather normal as regards the mean air temperature and relative humidity. The month was rainless apart from trace on the 22nd.

The daily maximum air temperatures were below normal apart from two warm spells in the periods (1st-5th) and (10th-11th). The highest maximum air temperature for the month was 32.2°C reported on the 2nd. The lowest maximum air temperature was 16.8°C reported on the 28th. The absolute minimum air temperature at 5 cm. above ground fell below 0°C on the 29th & 30th when its value was -1.4°C and -0.1°C respectively.

The extreme maximum soil temperatures were higher than last December at all depths apart from 100 cm. depth where it was lower by 0.2°C; the departures varied between 4.8°C at 2 cm., and 1.9°C at 50 cm. On the other hand the extreme minimum soil temperatures were lower than last December at all depths apart from 100 cm. depth where it was higher by 0.2°C ; the depatures varied between 1.2°C at 2 cm. and 0.4°C at 50 cm.

The mean daily values of actual sunshine duration, wind speed at 1.5 m. and pan evaporation were all higher than December 1970 by 0.6 hour, 0.2 m./sec. and 0.36 mm. respectively.

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

DECEMBER — 1971

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 . . .	18.4	11.0	14.6	13.6	15.8	24.0	24.0	24.0	22.7	10.6	0.6	0.03	0.0	0.0	0.0	0.0
Tahrir.	20.0	8.4	13.6	11.4	15.8	24.0	24.0	23.8	18.7	8.6	1.8	0.2	0.0	0.0	0.0	0.0
Bahtim..	19.5	7.7	13.0	10.8	15.5	24.0	24.0	23.3	17.4	7.0	1.4	0.2	0.0	0.0	0.0	0.0
Kharga.	22.5	7.8	15.2	12.6	18.1	24.0	24.0	23.4	18.7	11.7	4.7	1.7	0.1	0.0	0.0	0.0

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

DECEMBER — 1971

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	25.4	10	14.8	22	17.1	10	8.2	31	5.0	31	—	—
Tahrir	27.6	1	12.2	22	14.4	2	3.6	17	1.4	17	—	—
Bahtim	27.5	11	12.4	22	14.0	11	2.8	28	-0.8	28	—	—
Kharga.	32.2	2	16.8	28	18.8	1	0.8	29	-1.4	29	—	—

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

DECEMBER — 1971

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 . .	200.2	167.4	314.0	53	73	64	28	10	9.1	9.4	13 5	1	4.2	11	5.4	4.47	33.1	14.6	22
Tahrir.	195.0	165.7	316.9	52	83	68	44	11	9.7	10.7	16.4	2	4.6	12	3.5	2.95	19.4	10 4	22
Bahtim.. . . .	211.2	163.2	317.6	51	74	53	27	11	8.2	8.3	14.0	2	3.8	12	3.5	2.87	17.2	9.7	22
Kharga.. . . .	314.4	293.5	329.2	90	50	35	18	12	6.2	6.7	10.0	4	2.2	12	8.3	6.27	Tr.	Tr.	22

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

DECEMBER — 1971

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	24.5	23.0	21.6	19.6	19.3	20.8	22.8	—	—	—	—	—	—	—	—	—
	L	7.5	8.6	10.3	12.4	14.0	16.1	20.3	—	—	—	—	—	—	—	—	—
Tahrir. . .	H	31.2	28.6	24.4	21.7	20.7	21.5	23.6	24.9	—	—	—	—	—	—	—	—
	L	7.1	7.6	8.2	9.7	13.6	17.0	20.7	23.0	—	—	—	—	—	—	—	—
Bahtim . .	H	29.8	25.4	23.2	22.0	22.8	24.3	26.4	26.5	—	—	—	—	—	—	—	—
	L	4.2	5.4	9.5	15.1	18.8	21.3	24.6	25.6	—	—	—	—	—	—	—	—
Kharga.. .	H	34.6	31.2	28.0	25.9	25.9	26.8	28.9	29.6	—	—	—	—	—	—	—	—
	L	2.5	5.9	10.3	15.2	19.9	23.7	27.2	28.7	—	—	—	—	—	—	—	—

Table C 5.—SURFACE WIND

DECEMBER — 1971

STATION	Wind Speed m/sec at $1^1/_2$ metres			Days with surface wind speed at 10 metres							Max. Gust (knots at 10 metres	
	Mean of the dry	Night time mean	Day time mean	≥10 knots	≥15 knots	≥20 knots	≥25 knots	≥30 knots	≥35 knots	≥40 knots	Value (knots)	Date
M. Matruh	4.8	4.4	5.4	31	26	19	15	11	7	2	58	22
Tahrir.	2.1	1.5	2.6	29	20	9	4	1	0	0	41	18
Bahtim..	2.0	1.2	2.7	27	14	5	2	0	0	0	35	18
Kharga.	3.1	2.2	4.0	26	20	9	0	0	0	0	35	13