MONTHLY WEATHER REPORT

VOLUME 48 NUMBER 1

JANUARY 1957

MINISTRY OF WAR–METEOROLOGICAL DEPARTMENT
CAIRO–EGYPT

National Oceanic and Atmospheric Administration

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CONTENTS

FOREWARD

SINCE 1909, the monthly weather report has been issued regularly giving a brief summary of the weather conditions prevailing over Egypt during the month. These reports used to inculde a table giving a limited climatological data for some selected surface observations.

On January 1954, the monthly 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 in the general summary of the weather conditions, it has been classified into different items to give a more comprehensive information of the synoptic situations and the associated weather that was experienced. Different climatological tables for some selected surface observations and the miscellaneous weather phenomena has been added to the report.

To meet the increasing demand for upper air data, the climatological tables included in the monthly weather reports has been extended as from January 1956 to include upper air climatological data. The agro-meteorological observations made at the field of the new central Agro-Meteorological station at Giza has been also added to the report.

The climatological data included in these reports has been completely revised. A new set of these tables is being introduced with effect from this monthly report of January 1957 to give as far as possible a complete information about surface and upper air climatological data from a more complete and representative net work of stations and from the agro meteorological station at Giza.

In order to explain how these tables have been compiled detailed notes are included in this report giving information about the instruments used and their exposure, the methods of observations and methods of computing the means and frequencies included in each of these tables.

Starting from this report of January 1957 serial references in volume and number shall be given to each report; each year shall carry a volume number and the report for each month shall carry a serial number in that volume: No. 1 being for January and 12 for December.

The reference number for this monthly weather report of January 1957 shall be VOLUME 48 - No. 1 ; VOLUME 1 being that of the monthly weather reports for 1909.

M. F. TAHA
Director General

Date 16-9-1957

NOTES ON TABLES

For the purpose of this monthly Weather Report, Egypt is devided into six climatic districts as follows :—

District 1.—Mediterranean Area.

District 2.—Lower Egypt.

District 3.—Middle Egypt.

District 4.—Upper Egypt.

District 5.—Western Desert.

District 6.—Red Sea Area.

The data included in this report are based on observations made at the basic network of synoptic stations together with some selected climatological stations which are indicated on page...7..

The data included in Tables C_1, C_2, and C_3 are based on the observations taken at the Central Agro-Mereorological Station at Giza. The observation field of this station is divided into several plots of the size of about 400 to 600 square meters; three of these plots are used for standard observations running throughout the whole year; the first serves as a dry and bare field, the second as a wet and bare field and the third as wet field covered with grass.

TABLE A1.—*Surface Climatological Data.*

This table gives the mean monthly values of the atmospheric pressure corrected to M.S.L., the dry bulb temperature and the relative humidity at the main synoptic hours of observations and their deviations from the corresponding normal values for the month.

The barometers used for measuring the atmospheric pressure are of the Fuess or Kew portable mercury types, which are compared from time to time with standardized barometers at the Headquarters of the Meteorological Department.

The atmospheric pressure is expressed in millibars (one millibar=1000 dynes per square centimeter =the pressure due to 0.7501 millimeters of mercury at 0°C. in latitude 45°). The corrections for index, temperature, height and latitude have been applied to the barometer readings to obtain the atmospheric pressure reduced to M.S.L.

The monthly mean values of the relative humidity for a synoptic hour is derived from the mean readings of the daily dry and wet bulb thermometers using Jellinks Psychrometer tables (Liepzig 1911); no corrections for wind velocities are applied. The dry and wet bulb (mercury) thermometers are freely exposed in louvered Stevenson screen of the Egyptian Type; the height of the bulbs is about 140-150 centimeters above ground.

The normal values of the atmospheric pressure, dry bulb temperature and relative humidity for a synoptic hour are computed for a period of 15 years or more in most cases; for new stations these normals are computed for a period not less than 5 years.

TABLE A 2.—*Surface Climatological Data.*

This table contains information on temperature, rainfall and evaporation.

The maximum (mercury) and the minimum (alcohol) thermometers are freely exposed in louvered Stevenson screen of the Egyptian Type; their bulbs are at a height of 160-170 centimeters above ground.

The amount of rainfall is measured by ordinary rainguages; in addition, recording rainguages are used in some selected stations. The rim of these guages are at a height of 90-100 centimeters above ground.

The rainfall for a given day is the amount of rain which has fallen during the 24 hours commencing at 0600 U.T. of that day; when the amount of rain which has fallen is not large enough to be measured (0.05 millimeters or less), the term "trace" is entered as tr.

Evaporation is measured by a Piche Tube freely exposed in the same screen; the evaporation disc has an effective area of 10.1 cms^2, white in colour and at a height of 140-150 centimeters above ground. Evaporation readings are taken daily at 0600 U.T. and give the evaporation for the previous 24 hours.

The temperatures are given in degrees celsius, evaporation and rainfall are given in millimeters.

The normal values for the maximum and minimum temperatures for the month are computed as indicated in the notes of Table A1.

The following data included in this table:

— The monthly mean values of the daily maximum, the daily minimum and their deviations from the corresponding normal values for the month.

— the extreme values of the maximum and minimum temperatures for the month and their date of occurrence.

— the total amount of rainfall for the month, the maximum fall in 24 hours and its date of occurrence.

— the number of days of rain within specified limits.

— the daily mean value of evaporation.

TABLE A3.—*Miscellaneous Weather Phenomena.*

This table contains the number of days of occurrence of rain, snow or sleet, hail, thunderstorms, fog, mist or sandrising or dustrising, duststorms or sandstorms and gales. Except for rain (see notes on table A2), days of occurrence of the other weather phenomena are those days during which the phenomena have occurred between 0001 and 2400 U.T. The following definitions are used in compiling this table:

— days of rainfall are those during which rainfall is 0.1 mm.or more.

— days of thunderstorm are those during which thunder is heard at the station.

— days of fog are those during which the horizontal visibility fell below 1000 meters due to fog at the station.

— days of mist, sandrising or dustrising are those during which the horizontal visibility has deteriorated but remained above 1000 meters at the station due to the prevailence of these phenomena.

— days of sandstorms or duststorms are those during which visibility fell below 1000 meters due to sand or dust at the station.

— days of gales are those during which the surface wind speed reached 34 knots or more at the station.

— days of snow, sleet or hail are those during which these phenomena have occurred at the station.

TABLE A4.—*Number of Simultaneous Occurrences of Surface Wind within Specified Ranges of Speed and Direction.*

This table follows the general lines of Model B of Chapter 12 Part 4 of the WMO Technical Regulations.

It gives the number of simultaneous occurrences of surface wind speed and direction within specified ranges.

In preparing this table, the mean hourly values of surface wind speed and direction as taken from the daily records of the Dines Pressure Tube Anemobigraph for the whole month, are used. The mean hourly values of the surface wind speed and of the direction refer to the period of 60 minutes centered at the hour.

The number of hours during which the instrument failed to record is given in a separate column.

The term "variable" is used to denote winds of no definite direction; the speed is normally below 5 knots. The term "calm" is used to denote winds of speed less than one knot.

Wind speed is given in knots and the direction is given in degrees east of the north on the scale 000-360°.

TABLE B1.—*Upper Air Climatological Data.*

This table follows the general lines of Recommendation 34 (CCL-1) and Model E of Chapter 12 Part 4 of the WMO Technical Regulations.

It gives the mean monthly values of the temperature, dew point in degrees celsius and the height in geopotential meters above M.S.L. of the standard and some selected pressure surfaces at the standard hours of upper air observations, together with the highest and lowest values of the temperatures and heights of those pressure surfaces.

This table is based on observations taken by the radiosonde modulating frequency recording type.

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

The mean values of the height, pressure, temperature and dew point are computed from the daily values of these elements at each of the upper air observations for the month.

Heights are given in geopotential meters above M.S.L., pressure in millibars, temperatures and dew points in degrees celsius and the wind speed in knots; wind direction in degrees east of the north on the scale 000-360°.

This table gives the following data :

— the mean height, mean pressure and the mean dew point of the freezing level together with the height, pressure and dew point of the highest and lowest freezing levels for each hour of the upper air observations.

— the mean height, mean pressure and the mean temperature of the tropopause together with the height, pressure and temperature of the highest and lowest tropopause for each hour of the upper air observations.

— the direction and speed of the highest wind speed recorded for the month for each hour of the upper air observations together with the height and pressure at which that speed occurred.

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

This table follows the general lines of Recommendation 34 (CCL-1). It gives for each of the standard and some selected pressure surfaces, the number of occurrences of the wind direction within specified ranges (n) and the mean scalar wind speed blowing from each of these ranges $(ff)_m$. The mean scalar wind speed from all directions for each of these surfaces is given under a separate column at the end of the table.

The data included in this table is based on observations taken by means of a radiotheodolite.

TABLE C1.—*Air Temperature, Humidity and Wind Speed at 2 Meters above the Ground.*

This table gives the daily values of some meteorological elements measured at a height of approximately 2 meters above ground level.

The maximum (mercury) and the minimum (alcohol) thermometers are freely exposed in a louvered Stevenson screen of the Egyptian type; the relative humidity is measured by ventilated dry and wet bulb thermometers freely exposed in the same screen. The bulbs of these thermometers are at a height of 210 cms above ground level.

The mean air temperature of the day is computed from the formula (06+12+18 U.T. dry bulb readings+Minimum temperature) /4.

The daytime mean temperature is computed graphically from the record of a bimetallic thermograph exposed in the screen for the period from sunrise to sunset; the night time mean temperature of a certain day is similarly obtained for the period from sunset of the previous day to sunrise of that day

In computing the relative humidity, the Aspiration - Psychrometry tables of the Preussichen Meteorological Institute 1927 are used; corrections for the wind speed are applied. The duration of the relative humidites above 90% and above 80% in hours are derived graphically from a hair hygrograph exposed in the screen.

The daytime mean wind speed is computed from the total run of air during the period 0600 to 1600 U.T. as indicated by the counter of an ordinary cup anemometer freely exposed at a height of 2 meters above ground; the night time mean wind speed is similarly computed for the period 1600 U.T. of the previous day to 0600 U.T. the (following) day. The mean wind speed for the day is also similarly computed for the period of 24 hours, from 1600 U.T. of the previous day. Wind speeds are expressed in meters per second.

This table gives the following data:

— the daily and the monthly mean values, the extreme values for the month of the maximum and minimum air temperatures and their dates of occurrence in degrees celsius.

— the mean air temperature, the day time mean and the night time mean temperatures day by day and the corresponding monthly mean values in degrees celsius.

— the duration of relative humidity above 90% and above 80% day by day.

— the daily values of the relative humidity and vapour pressure in millimeters at 1200 U.T. and the corresponding monthly mean values; the lowest value of the 1200 U.T. relative humidity, the extreme values of the 1200 U.T. vapour pressure for the month and their dates of occurrence.

— the mean wind speed, the day time mean and the night time mean wind speed day by day and the corresponding monthly mean values in meters per second.

The following additional information about the relative humidity and vapour pressure is given at the end of the table :

— the mean daily relative humidity derived from the formula (06+18U.T.) observations/2.

— the lowest relative humidity during the month as derived from the record of a hair hygrograph and its date of occurrence.

— the mean daily vapour pressure in millimeters derived from the formula (06+12+18 U.T.) observations/3.

— the extreme values of the vapour pressure in millimeters and the date of occurrence; the vapour pressure observations are teken every 3 hours from 0600 U.T. to 1800 U.T.

TABLE C 2.—*Evaporation, Rainfall, (Solar+Sky) Radiation and Sunshine Duration. Daily Number of Hours of Duration of Air Temperature Above Certain Limits.*

Evaporation data of this table are measured by a Piche Tube freely exposed in the open air; the evaporation disc has an effective area of 10.1 cms^2, white in colour and at a height of 120 cms. above dry soil. Evaporation readings are taken daily at 0600 U.T. and give the evaporation for the previous 24 hours.

The rainfall data appearing in this table are measured by ordinary rain gauge, the height of its rim is 40 cms. above ground; regarding the rainfall measurements refer to notes on table A2.

The (solar+sky) radiation data are measured by the Robitzch actinograph freely exposed.

The sunshine duration is measured by the Campbell Stokes sunshine recorder freely exposed all the year round.

The duration of air temperature above the specified limits of temperature appearing in this table are derived graphically from a bi-metallic thermograph freely exposed in a louvered Stevenson screen of the Egyptian type.

This table gives the following data :

— The daily values of evaporation in millimeters and the corresponding monthly mean values.

— The daily amount of rainfall in millimeters, the total amount fallen during the month, and the highest amount fallen in 24 hours and its date of occurrence.

— The daily values of the (solar+sky) radiation in gram calories per square centimeter and the total amount of that radiation during the month.

— The sunshine duration in hours day by day, the total duration during the month and the mean daily duration. The percentage of sunshine duration with respect to the total hours of possible sunshine for the month is also given as an annex to this table.

— The duration in hours of air temperature above 0,5,10,15,20,25,30,35, and 40 degrees celsius day by day measured at a height of approximately two meters above ground.

TABLE C3.—*Soil Temperatures at Different Depths and Minimum Air Temperature at 5 cms. above Ground.*

The soil temperatures at the different depths are measured by earth mercury thermometers in degrees celsius to the nearest $\frac{1}{4}$ °C. The readings of these thermometers for the different depths are taken as follows during the period 0500 U.T. to 1800 U.T :

— every two hours for the 0.3,1,2 and the 5cms. depths.

— every three hours for the 10 and 20 cms. depths.

— every six hours for the 50 cms. depth.

— once daily at 1000 U.T. for the 100 and 200 cms. depths.

— once weekly for the 300 cms. depth.

The minimum air temperature at 5cms. above ground is taken by alcohol thermometers freely exposed in the open air and mounted on wood supports.

This table gives the following data :

— the maximum and minimum temperatures in degrees celsius at the depths, of 0.3,1,2,5,10,20, 50, 100, 200 and 300 centimeters in dry soil, wet soil and grass.

— the lowest minimum air temperaure in degrees celsius at 5 cms.above ground over dry soil, wet soil and grass, and their dates of occurrence.

Abbreviations :

M.S.L. = Mean sea level.
U.T. = Universal time.
WMO = World Meteorological Organization.
CCL = Climatological Comission of the World Meteorological Organization.

LIST OF STATIONS APPEARING IN THE REPORT

Station	Index Number	Latitude N	Longitude E	Elevation + (meters)
Sallum	300	31° 33′	25° 11′	04
Sidi Barrani	303	31° 38′	25° 58′	21
Mersa Matruh (A)	306	31° 20′	27° 13′	25
Dabaa	309	31° 56′	28° 28′	17
Alexandria (A)...	318	31° 12′	29° 57′	—2
Kom el Nadora	319	31° 12′	29° 54′	32
Dekheila (A)...	316	31° 08′	29° 48′	01
Damietta	330	31° 25′	31° 49′	03
Port Said (A)...	333	31° 17′	32° 14′	01
El Arish	336	31° 57′	33° 46′	10
Gaza	338	31° 28′	34° 31′	43
Damanhour	339	31° 02′	30° 28′	06
Mansoura	342	31° 03′	31° 23′	07
Tanta	348	30° 47′	31° 00′	14
Shebin el Kom	360	30° 36′	31° 01′	12
Zagazig	354	30° 35′	31° 30′	13
Zaher (A)...	365	30° 24′	31° 35′	19
Wadi el Natrun	357	30° 23′	30° 21′	01
Abu Sueir (A)...	438	30° 34′	32° 06′	15
Cairo (A)...	366	30° 08′	31° 24′	65
Almaza (A)...	372	30° 06′	31° 22′	74
Mostafa Helmi(A)	368	30° 07′	30° 55′	150
Giza	375	30° 02′	31° 13′	21
Helwan	378	29° 52′	31° 20′	116
Fayoum	381	29° 18′	30° 51′	30
Beni Suef	384	29° 04′	31° 06′	28
Minya (A)...	387	28° 05′	30° 44′	39
Asuit (A)...	393	27° 11′	31° 06′	68
Nag Hammadi	399	26° 03′	32° 15′	70
Qena	402	26° 10′	32° 43′	75
Luxor (A)...	405	25° 40′	32° 42′	82
Aswan	414	24° 02′	32° 53′	111
Siwa	417	29° 12′	25° 29′	—15
Bahariya...	420	28° 20′	28° 54′	128
Farafra	423	27° 03′	27° 58′	90
Dakhla	432	25° 29′	29° 00′	122
Kharga	435	25° 26′	30° 34′	72
Suez...	450	29° 56′	32° 33′	10
Tor	459	28° 14′	33° 37′	02
Hurghada	462	27° 17′	33° 46′	01
Quseir	465	26° 8′	34° 18′	07

+ The height of the ground on which the rain gauge stands above mean sea level; in case of aerodromes it is the official height of the aerodrome above mean sea level. (A) Station at aerodrome.

GENERAL SUMMARY OF WEATHER CONDITIONS

JANUARY 1957

Changeable with abnormal cold waves and rainfall records

The main features were.

(1) Heavy and abnormal rainfall over Lower Egypt, Middle Egypt and Western Desert with new records at Sallum and Alexandria.

(2) Three consecutive cold waves; the third of which has not been experienced since *1923.*

(3) Instability within layer between 850 and 700 mb. levels. most of the month.

(4) Abnormal low temperatures on the 5th, 16th, and 24th. reaching 0°c at scattered places,—1.8°c at Giza and—2.5°c at Farafra.

General description of weather.

The weather was generally cold and rainy all over the country most of the month apart from a short mild and warm period between 15th and 17th.

For the month as a whole the barometric pressure, maximum temperature and minimum temperature were below normal.

Rainfall exceeded highly its normal over Lower Egypt, Middle Egypt but it was more or less round normal elsewhere.

Pressure and wind.

The month started with a complex low pressure system over west Mediterranean together with a southern extension of the Siberian Anticyclone over east Mediterranean. This complex low proceeded rapidily east-wards while filling up gradually and reached Cyprus on the 6th causing a gradual and appreciable fall in the barometric pressure over east Mediterranean generally and Egypt in particular; while high pressure over north Atlantic built up in the rear.

This rather shallow centre over Cyprus experienced an appreciable deepening on the 7th due to the approach of a northerly cold stream from the rear of the northern eastward travelling troughs over the Black Sea. Up till the 10th it maintained its intensity and the barometric pressure over Egypt surffered a second oscillation.

Between 11th and 12th a deep depression developed over Italy and Greece due to the amalgamation of shallow centres over that area; while high pressure built up from north Arabia to Egypt. This new pressure distribution continued till the 16th and caused rise in the barometric pressure over Egypt in general apart from the western districts which were under the effect of the above mentioned low.

The last deep central Mediterranean depression shooted rapidly eastwards and passed by Cyprus on the 18th while high pressure built up rapidly in its rear. An abrupt fall in the pressure over Egypt occurred during this short period.

Between the 19th and 24th, an intense anticyclone developed over Mediterranean in general and a remarkable pressure rise was a charactaristic feature of the whole Mediterranean area in general.

On the 25th the atmospheric pressure over Egypt started to fall due to the appearance of a trough south Crete. A further fall was observed on the 27th due to the northward oscillation of the Sudan Monsoon. The combined effect of this pressure distribution caused the rapid formation of a deep Cyprus low and consequently the abnormal pressure fall over Egypt on the 30th.

During this month surface winds over Lower and Middle Egypt were changeable and four different wind profiles can be distinguished *viz.*

(*a*) Light to moderate SE/S winds in advance of the eastward travelling Mediterranean troughs.

(*b*) Moderate to fresh SW/W winds during the duration of Cyprus low.

(*c*) Moderate N/NW winds in the east area of the well built Mediterranean high pressure belt.

(*d*) Light to moderate NE/E winds in the SW arm of the Siberian Anticyclone extension.

On the other hand light NNly winds prevailed most of the month over Upper Egypt.

Temperature.

Maximum temperatures were generally below normal most of the month apart from the short warm and pleasant period between 15th and 17th.

Three varient cold waves prevailed most of this month, the last of which was the most outstanding and severe. It has not been experienced since year 1923.

Minimum temperatures were more or less of the same behaviour as maximum temperatures though large deviations below normal were reported on the 9th at Alexandria (11°c) and Helwan (8°c) and on 24th at Cairo (Ezbekiya). (8°c).

Minimum temperature dropped to -2,5°c on the 16th at Farafra and to —1,8°c on the 24th at Giza while various scattered places in the Republic reported minimum temperatures about 0°c on the 5th, 16th and 24th.

Cairo on 28/11/1957.

Precipitation.

During this month four rainy periods were marked viz (5th, 6th) (10th, 11th) (18th-22nd) and (28th, 29th).

Total rainfall was above normal Lower Egypt, Middle Egypt and Western Desert. Sallum reported 38.4 mm. on the 5th and Alexandria 47.0 mm. on the 10th which exceed the previous records.

Hail was reported at both Giza and Beni Suef on the 10th due to large instability in the upper levels.

Miscellaneous weather phenomena.

(*a*) Widespread duststorms or rising dust most parts of Lower and Middle Egypt on the 30th, Western Desert on 3rd, 30th and 31st.

(*b*) Few occasions of early morning mist and fog patches over scattered parts of Lower Egypt most of the periods (14th-18th) and (26th-28th).

M. F. Taha

Director General
Meteorological Department

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA

JANUARY 1957

District	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (°C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	17.4	—	16.8	—	16.1	—	16.7	—	10.9	—	10.0	—	16.7	—	13.2	—	71	—	49	—	36	—	46	—
	Sidi Barrani	16.8	—	16.5	—	15.8	—	16.4	—	10.1	—	10.0	—	16.0	—	12.1	—	76	—	76	—	63	—	78	—
	Mersa Matruh (A)	16.8	— 0.6	17.0	— 0.8	16.2	— 0.5	17.2	— 0.4	9.6	—	9.5	—	16.4	—	11.5	—	71	-	72	— 3	51	0	68	0
	Dabaa	17.7	—	17.5	—	15.9	—	16.9	—	9.5	—	9.5	—	16.5	—	11.5	—	78	—	72	—	42	—	63	—
	Alexandria (A)	17.0	—	17.3	—	16.0	—	17.1	—	10.3	— 1.1	9.8	— 1.6	17.4	— 0.3	12.5	— 0.7	74	— 6	77	— 1	49	— 5	71	— 5
	Kom el Nadura	17.6	—	17.7	—	16.3	—	17.6	—	11.9	—	11.3	— 1.8	15.9	— 1.5	13.6	— 1.9	71	—	70	— 2	56	— 2	63	— 4
	Dekheila (A)	17.2	—	17.5	—	16.2	—	17.0	—	9.9	—	9.3	—	16.2	—	11.9	—	75	—	78	—	55	—	72	—
	Damietta	—	—	17.6	— 0.6	16.3	— 0.5	16.8	— 0.8	—	—	9.9	— 1.5	15.8	— 0.9	12.2	— 0.3	—	—	83	0	57	— 5	76	— 7
	Port Said (A)	15.7	—	17.4	—	16.2	—	17.0	—	11.3	— 1.9	11.9	— 1.1	15.8	— 1.4	12.9	0.0	78	0	75	— 1	59	— 2	77	+ 2
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Gaza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	—	—	17.5	— 1.1	16.5	— 0.9	17.1	— 0.9	—	—	9.9	+ 0.1	16.9	— 0.7	11.8	— 0.4	—	—	79	— 3	54	— 3	74	— 5
	Mansoura	17.1	—	17.6	— 1.0	16.3	— 0.9	17.2	— 1.1	8.9	—	8.0	— 1.7	17.5	— 0.7	11.5	— 1.2	80	—	83	+ 1	49	— 5	71	— 7
	Tanta	—	—	18.6	+ 0.2	17.0	+ 0.3	17.8	0.0	—	—	8.7	— 0.9	17.4	— 1.4	10.9	— 1.0	—	—	80	— 4	49	— 4	71	— 7
	Shebin el Kom	—	—	17.8	— 1.0	16.4	— 0.6	17.2	— 1.1	—	—	9.3	—	17.2	—	11.4	—	—	—	75	—	40	—	65	—
	Zagazig	17.2	—	17.7	— 1.4	16.4	— 0.8	16.9	— 1.4	9.2	—	8.5	— 1.1	17.4	— 1.3	12.3	0.0	76	—	80	— 5	56	— 1	75	—
	Zahar (A)	17.9	—	19.0	—	17.3	—	18.4	—	8.8	—	9.5	—	17.0	—	12.0	—	81	—	76	—	44	—	74	—
	Wadi el Natrun	—	—	18.7	—	16.6	—	16.9	—	—	—	9.2	—	17.5	—	12.8	—	—	—	78	—	46	—	64	—
	Abu-Sueir (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo Area	Cairo (A)	17.6	— 0.7	18.2	— 0.7	16.3	— 1.1	17.6	— 0.8	10.0	— 1.3	10.1	— 0.7	16.1	— 2.3	12.1	— 1.9	69	0	71	+ 3	44	+ 1	64	+ 4
	Almaza (A)	17.8	— 0.5	18.1	— 0.9	16.4	— 0.8	17.4	— 1.1	10.5	— 0.6	10.1	— 0.6	16.6	— 1.8	12.6	— 1.4	62	— 1	67	+ 4	43	— 4	59	— 3
	Mostafa Helmi (A)	17.2	—	17.3	—	15.5	—	16.4	—	8.6	—	9.4	—	15.6	—	11.2	—	73	—	69	—	41	—	63	—
	Giza	18.0	—	18.7	—	17.0	—	17.8	—	8.5	—	8.4	— 0.6	16.5	— 2.3	11.1	— 1.0	83	—	79	— 2	44	— 1	68	— 4
	Helwan	—	—	18.8	— 0.6	16.7	— 0.4	17.8	— 0.6	—	—	9.3	— 0.8	16.0	— 1.7	12.5	— 1.4	—	—	70	+ 2	45	+ 5	57	+ 3
Upper Egypt	Fayoum	18.1	—	19.2	— 0.4	16.9	— 0.5	17.5	— 1.1	3.1	—	8.7	— 0.6	16.4	— 2.9	11.8	— 0.9	—	—	72	+ 1	49	+ 8	66	+ 2
	Beni Suef	18.5	—	19.3	—	17.0	—	18.2	—	8.8	—	8.0	—	18.5	—	11.8	—	55	—	67	—	38	—	64	—
	Minya (A)	18.1	—	19.0	—	16.9	—	17.6	—	6.2	— 0.5	6.7	— 0.3	19.1	— 1.0	11.3	— 0.5	90	—	72	— 1	31	— 5	42	—16
	Asyut (A)	18.5	—	19.6	—	17.0	—	18.2	—	9.6	—	8.7	— 0.8	18.7	— 0.1	13.5	— 0.8	49	—	55	—16	31	—12	45	—19
	Nag Hammadi	17.7	—	20.6	—	16.8	—	17.7	—	8.8	—	10.3	—	19.8	—	12.1	—	68	—	61	—	39	—	67	—
	Qena	16.8	—	19.2	— 0.3	15.9	— 0.3	17.3	— 0.1	8.1	—	9.7	— 0.7	18.9	— 2.3	12.8	— 1.3	70	—	64	— 5	40	+ 1	57	— 3
	Luxor (A)	16.7	— 1.0	18.7	— 0.5	15.8	— 0.6	17.0	— 0.6	7.8	— 1.1	9.3	— .9	20.5	— 0.6	13.4	— 0.8	58	0	62	— 6	38	+ 2	49	0
	Aswan	17.0	—	18.5	— 0.5	15.4	— 0.6	16.6	— 0.8	10.7	—	11.1	— 1.6	21.8	— 0.9	16.6	— 1.1	51	—	57	+ 5	26	— 1	37	+ 2
Western Desert	Siwa	18.0	—	18.5	— 1.2	17.6	— 1.7	17.9	— 1.4	7.3	—	6.7	— 1.4	17.4	— 1.3	12.0	— 0.6	67	—	94	+22	37	—17	55	—11
	Bahariya	—	—	19.3	— 1.0	16.9	— 1.3	18.3	— 1.4	—	—	7.9	— 1.5	18.6	0.0	12.0	— 0.3	—	—	68	+ 2	48	+ 7	61	+ 4
	Farafra	20.0	—	21.0	—	18.6	—	19.7	—	7.8	—	7.0	—	18.4	—	12.2	—	50	—	61	—	31	—	40	—
	Dakhla	19.2	—	20.8	—	17.7	—	18.9	—	8.6	—	6.2	—	18.6	—	14.4	—	43	—	75	—	27	—	31	—
	Kharga	17.3	—	18.1	— 2.1	15.6	— 2.2	17.0	— 1.8	7.5	—	9.1	— 1.4	20.2	— 0.9	13.0	— 1.6	61	—	61	— 1	57	+18	42	— 8
Red Sea	Suez	17.5	—	18.4	— 0.3	16.8	— 0.7	17.7	— 0.1	11.1	—	10.3	— 2.0	17.4	— 1.3	13.6	— 1.2	64	—	69	— 3	44	— 4	58	— 4
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	16.7	—	17.4	—	15.5	—	16.7	—	10.8	—	12.9	—	20.2	—	14.0	—	54	—	48	—	39	—	52	—
	Quseir	—	—	17.4	— 0.5	15.7	— 0.6	16.3	— 0.7	—	—	15.5	— 1.7	20.4	— 1.0	17.3	— 1.1	—	—	49	— 5	47	— 8	55	— 3

TABLE A 2.—SURFACE CLIMATOLOGICAL DATA
JANUARY 1957

District	Station	Air Temperature (°C)											Rainfall in Millemetres						Mean Evapration Piche (mms.)
		Mean Max. (A)	Mean Min. (B)	Daily Mean A+B / 2	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No. of days with amount of rain			
					Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				≥ 0.1	≥ 1.0	≥ 10.0	
Mediterranean	Sallum	17.5	9.0	13.2	22.2	15	13.8	31	5.0	10	11.8	27	55.2	38.4	5	2	4	2	8.9
	Sidi Barrani	16.6	7.7	12.2	22.2	15	12.7	31	4.7	10	12.3	19	64.6	14	5	1	6	2	4.9
	Marsa Matruh (A)	17.3	7.2	12.2	22.2	16	12.3	31	3.5	23	10.6	27	38.1	12.2	30	1	8	1	6.8
	Dabaa	17.5	6.2	11.8	22.2	16	13.4	31	1.5	17	12.4	1	48.0	17.0	21	0	8	2	4.8
	Alexandria (A)	18.3	8.2	13.2	23.0	17	14.2	31	3.4	24	13.6	1	78.9	28.7	9	5	5	2	4.0
	Kom el Nadura	17.2	9.2	13.2	21.2	17	13.9	31	5.1	11	13.7	18	79.6	47.9	10	5	4	3	5.9
	Dekheila (A)	16.9	7.6	12.2	21.2	17	13.6	31	4.0	14,24	12.3	18	81.6	40.2	11	5	6	2	4.3
	Damietta	16.2	5.8	11.0	20.0	17	12.8	30	3.0	26	9.4	3	43.9	11.7	20	1	7	1	2.5
	Port Said (A)	17.1	9.4	13.2	21.4	17	13.8	30	5.1	24	13.1	25	20.6	5.7	20	6	4	0	3.5
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Gaza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	18.3	6.5	12.4	24.1	17	14.2	31	1.2	24	11.2	27	47.1	12.2	20	3	5	2	2.2
	Mansoura	18.2	6.0	12.1	22.0	15,17,25	12.5	30	1.0	24	11.2	27	14.0	9.0	28	0	5	0	2.2
	Tanta	18.2	4.1	11.2	22.3	17,25	12.3	30	0.4	24	8.1	27	29.5	8.9	21	2	6	0	1.9
	Shebin el Kom	18.2	7.5	12.8	22.9	17,25	13.1	30	1.7	24	11.1	27	21.1	5.4	31	1	6	0	2.3
	Zagazig	18.7	6.2	12.4	23.4	17	14.0	30	1.3	17	9.3	28	15.0	3.5	28	0	8	0	2.4
	Zaher (A)	17.6	7.4	14.5	21.8	3	13.6	11,30	2.5	24	11.6	27	6.9	2.0	31	6	2	0	5.7
	Wadi el Natrun	18.7	6.9	12.8	24.8	17	13.1	30	2.7	24	10.7	27	12.4	6.5	28	2	3	0	4.5
	Abu Sueir (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo Area	Cairo (A)	17.2	8.0	12.6	20.6	17	12.8	11	3.7	8	10.5	6	15.0	2.2	28	1	5	0	5.6
	Almaza (A)	17.8	8.2	13.0	22.0	17	13.0	11	3.9	8	11.4	6	17.7	3.8	28	5	6	0	4.0
	Mostafa Helmi (A)	16.6	6.8	11.7	20.5	17	11.4	30	3.0	24	9.4	28	20.3	11.2	31	2	4	1	7.4
	Giza	17.8	5.6	11.7	21.7	18	13.9	30	-1.8	24	10.2	29	14.3	3.4	31	6	5	0	—
	Helwan	16.7	7.8	12.2	21.0	18	12.1	11	4.9	11	10.5	28	10.9	2.3	30	4	5	0	4.4
Upper Egypt	Fayoum	17.8	5.5	11.6	20.8	18	15.0	8,30	0.9	24	10.2	28	3.2	2.2	10	0	2	0	2.1
	Beni Suef	19.0	5.2	12.4	22.8	18	15.5	30	0.5	24	9.9	28	4.6	2.4	30	0	3	0	2.7
	Minya (A)	19.8	3.5	11.6	23.3	17	16.5	30	0.1	16	8.4	28	tr.	tr	*	0	0	0	5.2
	Assiut (A)	19.7	6.2	13.0	23.5	27	16.2	8,11,22	3.7	18	10.3	28	tr.	tr.	9,10	0	0	0	7.3
	Nag Hammadi	21.0	4.8	12.9	27.6	28	16.6	6	2.5	12,24,25	9.2	7	0	0	—	0	0	0	3.0
	Qena	20.1	4.1	12.1	28.6	28	17.4	8	1.2	9,12	9.3	7	0	0	—	0	0	0	3.2
	Luxor (A)	21.8	4.2	13.0	27.7	18	16.1	8	0.6	24	9.8	7	0	0	—	0	0	0	4.0
	Aswan	22.9	6.8	14.8	33.2	28	16.0	8	3.1	9	14.0	7	0	0	—	0	0	0	10.5
Western Desert	Siwa	18.1	5.7	11.9	24.0	17	13.6	10	1.2	16	10.1	27,28	3.2	2.4	28	3	1	0	5.2
	Bahariya	19.5	4.0	11.8	27.4	17	14.2	[illegible]	0.2	14	10.3	28	tr.	tr.	—	0	0	0	4.2
	Farafra	19.5	4.2	11.8	25.9	17	14.5	11	-2.5	16	9.2	28	0	0	—	—	—	—	7.6
	Dakhla	19.7	3.8	11.8	27.3	27	15.8	6	0.0	5	11.0	28	0	0	—	0	0	0	6.5
	Kharga	20.9	4.8	12.8	31.0	31	17.4	23	0.6	24	13.6	28	0	0	—	0	0	0	4.1
Red Sea	Suez	18.6	5.5	12.0	21.8	26	14.8	21	0.0	24	10.0	29	8.0	3.0	1	0	4	0	4.0
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	20.5	7.9	14.2	25.5	18	16.0	23	4.6	24	13.4	19	tr.	tr.	27	0	0	0	11.1
	Quseir	21.3	12.1	16.7	26.2	18	16.0	23	9.1	25	16.1	7	0	0	—	0	0	0	13.4

TABLE A3.—MISCELLANEOUS WEATHER PHENOMENA
JANUARY 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandriding or Dustrising	Duststorms or Sandstorms	Gales
Sallum	2	0	0	0	0	0	0	0
Sidi Barrani	9	0	0	0	0	0	0	0
Mersa Matrouh (A)	10	0	0	0	0	0	0	0
Alexandria (A)	12	0	1	2	1	0	1	2
Port Said (A)	10	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	—	—	—	—	—	—	—	—
Cairo (A)	6	0	0	0	0	0	0	0
Almaza (A)	11	0	0	0	0	0	1	1
Mostafa Helmi (A)	7	0	0	0	0	0	2	0
Minya (A)	0	0	0	0	1	1	1	0
Assiut (A)	0	0	0	0	0	0	2	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan	0	0	0	0	0	0	0	0
Siwa...	4	0	0	0	1	1	0	1
Hurghada	0	0	0	0	0	0	0	0

TABLE A 4.—NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

JANUARY 1957

STATION	Wind Dir. Degrees from North / 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	Calm	Variable	Unrecorded
Sidi Barrani	1–10	16	10	2	3	5	11	26	18	32	11	6	1			
	11–27	66	29	1	5	12	10	28	122	107	37	39	77	2	2	49
	28–47	—	1	—	—	—	—	—	2	—	—	—	4			
	>48	—	—	—	—	—	—	—	—	—	—	—	—			
Mersa Martuh (A) ...	1–10	6	2	4	8	12	16	24	40	59	35	15	19			
	11–27	16	16	1	4	20	14	52	100	84	31	47	77	10	91	3
	28–47	—	—	—	—	—	—	—	—	2	—	—	—			
	>48	—	—	—	—	—	—	—	—	—	—	—				
Alexandria (A) ...	1–10	9	19	27	32	36	57	40	28	86	10	23	18			
	11–27	10	8	9	9	7	6	8	17	105	30	23	82	5	16	16
	28–47	—	—	—	—	—	—	—	—	8	1	—	—			
	>48	—	—	—	—	—	—	—	—	—	—	—	—			
Port-Said (A) ...	1–10	—	6	14	16	14	1	8	18	9	13	8	—			
	11–27	—	23	12	2	6	4	3	11	33	59	25	4	8	84	372
	28–47	—	—	—	—	—	—	—	5	6	—	—	—			
	>48	—	—	—	—	—	—	—	—	—	—	—	—			
Cairo (A) ...	1–10	19	26	43	18	24	51	43	62	43	35	32	28			
	11–27	1	4	25	7	—	26	36	36	30	21	36	23	17	53	5
	28–47	—	—	—	—	—	—	—	—	—	—	—	—			
	>48	—	—	—	—	—	—	—	—	—	—	—	—			
Almaza (A) ...	1–10	33	40	16	49	46	20	97	44	48	28	15	20			
	11–27	1	19	16	5	7	23	96	30	25	19	4	2			
	28–47	—	—	—	—	—	—	—	1	4	—	—	—	10	10	7
	>48	—	—	—	—	—	—	—	—	—	—	—	—			
Minya (A) ...	1–10	79	13	3	—	—	23	60	10	14	24	19	21			
	11–27	16	3	8	—	—	—	4	1	3	20	19	16	20	109	259
	28–47	—	—	—	—	—	—	—	—	—	—	—	—			
	>48	—	—	—	—	—	—	—	—	—	—	—	—			
Luxor (A) ...	1–10	36	28	22	22	24	51	44	38	24	26	65	140			
	11–27	—	2	1	—	—	—	—	—	6	1	3	5	63	129	14
	28–47	—	—	—	—	—	—	—	—	—	—	—	—			
	>48	—	—	—	—	—	—	—	—	—	—	—	—			
Siwa	1–10	34	9	28	36	57	28	14	9	25	73	93	45			
	11–27	8	5	—	—	4	10	4	11	8	50	53	48	72	13	7
	28–47	—	—	—	—	—	—	—	—	—	—	—	—			
	>48	—	—	—	—	—	—	—	—	—	—	—	—			
Hurghada	1–10	20	20	18	18	9	5	5	5	7	37	92	24			
	11–27	50	3	10	—	—	1	2	—	—	19	220	110			
	28–47	—	—	—	—	—	—	—	—	—	—	2	6	1	34	26
	48	—	—	—	—	—	—	—	—	—	—	—	—			

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO—JANUARY 1957.

Pressure Surface mb.	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1500 UT.		Highest	Lowest	obs. at 1500 U.T		Highest	Lowest	obs. at 1500 U.T	
	N	Mean			N	Mean			N	Mean
Surface	30	1010	1017	1001	30	15.9	19.4	10.0	30	4.5
1000	30	150	212	079	30	15.2	18.9	09.9	29	4.5
850	30	1501	1559	1409	29	05.3	12.3	—00.5	23	— 3.3
100	30	3064	3149	2950	30	—03.8	03.9	—10.1	15	—10.0
600	30	4273	4480	4145	30	—10.2	—03.9	—19.5	10	—18.6
500	30	5642	5880	5505	30	—19.6	—15.0	—30.6	6	—24.4
400	30	7275	7513	7041	30	—30.3	—25.2	—37.3	6	—35.2
300	29	9283	9685	9025	29	—43.4	—39.5	—47.7	—	—
200	22	11969	12383	11753	22	—54.6	—47.4	—65.0	—	—
150	17	13801	14220	13614	17	—59.6	—54.8	—63.5	—	—
100	11	16277	16551	16118	11	—66.0	—60.1	—69.6	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N=Number of observations of specified pressure surfaces.

MERSA MATRUH—JANUARY 1957

Pressure Surface mb.	Heights of presure surfaces (gmp.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1500 UT.		Highest	Lowest	abs. at 1500 U.T		Highest	Lowest	obs. at 1500 U.T	
	N	Mean			N	Mean			N	Mean
Surface	19	1014	1022	1006	19	15.0	17.5	12.4	19	07.6
1000	19	0147	0213	0081	19	13.9	16.1	11.8	19	07.0
850	19	1493	1561	1406	19	03.5	08.7	—01.8	17	— 4.1
700	19	3047	3150	2936	19	—04.3	03.3	—10.3	7	—11.7
600	18	4244	4370	4108	18	—11.6	—05.0	—17.6	—	—
500	18	5618	5777	5440	18	—21.2	—15.1	—28.7	—	—
400	18	7232	7529	7000	18	—33.3	—26.4	—40.8	—	—
300	14	9159	9502	8928	14	—45.6	—37.3	—49.8	—	—
200	10	11822	12187	11590	10	—53.2	—48.4	—57.8	—	—
150	8	13676	14036	13445	8	—59.0	—54.9	—64.5	—	—
100	5	16115	16252	15970	5	—65.1	—58.0	—70.7	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N = Number of observations of specified pressure surfaces.

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

JANUARY 1957

Station	Time of obs. U.T.	Freezing Level									First Tropopause									Highest Wind Speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm. (N)	Pressure mb. (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Direction 000-360	Speed in knots
Cairo (A)	1500	2587	749	54.8	3670	653	—		852	—4.0	11999	210	—56.4	15650	108	—	9020	308	—42.2	12700	180	280°	161
		(29)	(29)	(18)				1440	854	—4.0	(15)	(15)	(14)										
									858	—2.4													
Mersa Matruh (A)	1500	2314	771	54.4	3710	650	—	1180	872	—1.3	10137	267	—52.3	15150	116	—65.3	7600	370	—42.1	12300	180	250°	137
		(19)	(19)	(13)		653	—				(12)	(12)	(12)										

N = Total number of observations.

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

CAIRO (A).—1500 U.T.—JANUARY 1957.

Pressure Surfaces (mb.)	*Wind between specified ranges of Direction (000–360)*																						Calm	Total number of observations	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	$(ff)_m$			
Surface ...	2	4	2	12	3	12	1	18	—	—	—	—	1	16	8	12	3	14	4	12	2	12	4	12	0	30	12
1000	2	4	2	12	3	12	1	18	—	—	—	—	1	16	7	13	3	14	3	7	2	12	4	12	0	28	11
850	2	16	—	—	2	18	1	13	—	—	1	11	—	—	2	16	7	16	10	16	2	20	1	24	0	28	18
700	1	31	—	—	1	26	—	—	—	—	1	8	1	38	3	17	7	26	7	31	4	32	1	14	0	26	27
600	1	38	1	29	—	—	—	—	—	—	—	—	—	—	2	18	10	39	8	37	2	18	1	25	0	25	34
500	2	34	—	—	—	—	—	—	—	—	—	—	—	—	2	19	6	42	9	49	1	31	2	22	0	22	40
400	1	63	1	18	—	—	—	—	—	—	—	—	—	—	—	—	8	88	8	68	1	28	2	42	0	21	70
300	1	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	113	7	74	1	44	2	74	0	18	85
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	104	—	—	1	80	0	6	100
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

MERSA MATRUH (A)—1500 U.T.—JANUARY 1957

Pressure Surfaces mb.	Wind between specified ranges of direction (000–360)																						Calm	Total Number of observations	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			
Surface	—	—	1	9	—	—	2	6	2	10	—	—	2	9	—	—	3	12	4	12	1	4	4	8	0	19	9
1000	2	8	1	11	—	—	—	—	2	10	—	—	1	12	2	12	1	15	2	15	1	5	1	6	0	13	11
850	1	4	2	13	—	—	—	—	2	13	—	—	—	—	2	12	4	15	1	29	1	11	1	8	0	14	13
700	2	8	—	—	1	6	—	—	1	16	—	—	—	—	1	18	6	26	2	32	1	15	1	11	0	15	20
600	1	11	—	—	1	11	—	—	—	—	—	—	—	—	1	12	5	31	4	37	—	—	1	17	0	13	27
500	1	30	—	—	1	16	—	—	—	—	—	—	—	—	—	—	4	42	6	47	—	—	1	8	0	13	39
400	1	9	—	—	1	26	—	—	—	—	—		—	—	—	—	4	66	6	43	—	—	1	46	0	13	47
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGROMETEOROLOGICAL STATION AT GIZA

JANUARY 1957

This January was colder, and much more rainy than usual, although its mean relative humidity was below normal, contrary to January 1956. Frost occurred frequently during this month owing to the unusual cold spells which invaded Egypt, especially in the second half of the month, the severest of which gave minimum of —1.8 °C in the screen, which caused serious damage in vegetables, especially tomatoes. Also in some fruits especially bananas, young mango, and papuz.

Mean temperature for this month was ½ °C below normal, while for January 1956, it was 1 °C above. The absolute minimum was —1.8 °C, and for January 1956 it was + 3.5 °C, while the lowest January minimum measured in the past years was — 3 °C. The absolute maximum was 21.7 °C, and for last year 26.9 °C.

Mean relative humidity was 5% below normal, while for last January it was normal. Mean absolute humidity was 6.9 mm. against 8.1 for January 1956.

At 0.3 cms. in dry field, soil temperature attained a maximum of 35 °C and a minimum of —4 °C, while last year the corresponding values were 38½ °C and + 4 °C.

The minima at 5 cms. over grass fell below zero on 16 days, reaching the low figure of —7.1 °C, while for the preceeding January, it occured once, falling to — 0.9 °C only, i.e. January 1956 was practically frost-free.

Rainfall was exactly 3 times as January 1956, and 8.1 mms. in excess of the normal. Sunshine duration was slightly less, i.e. 3% only than January 1956. Total sun and sky radiation was less by 500 cal./cm².

DURATION IN HOURS OF AIR TEMPERATURE, 5 CMS. ABOVE GRASS, UNDER CERTAIN LEVELS BELOW 0 °C.

DATE	1.	3.	8.	9.	14.	15.	16.	17.	18.	20.	23.	24.	25.	26.
Below 0 °C	1	3	5	3	3	8	12	7	1	3	4	8	2	3
„ —1 °C	0	1	3	1	0	7	11	6	0	2	2	6	0	0
„ —2 °C	0	0	2	0	0	5	9	2	0	0	0	6	0	0
„ —3 °C	0	0	1	0	0	2	7	0	0	0	0	5	0	0
„ —4 °C	0	0	0	0	0	0	5	0	0	0	0	4	0	0
„ —5 °C	0	0	0	0	0	0	3	0	0	0	0	3	0	0
„ —6 °C	0	0	0	0	0	0	0	0	0	0	0	2	0	0

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METERS ABOVE THE GROUND

GIZA—JANUARY 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed meters per second		
	Max.	Min.	Mean * of the day	Day time mean	Night time mean	>90%	>80%	Relative %	Vapour pressure (mms.)	Mean of the day	Day time mean	Night time mean
1	17.9	5.2	11.2	13	11	9	17	66	9.3	1.5	3.1	0.3
2	19.2	6.6	12.2	15	10	8	9	57	9.3	1.3	2.2	0.7
3	20.4	3.5	11.2	15	11	6	8	45	7.7	1.8	3.0	0.9
4	17.6	7.8	10.2	13	11	0	2	36	5.1	2.6	3.7	1.9
5	17.9	6.2	10.6	14	8	0	0	40	5.9	2.5	3.5	1.8
6	19.4	8.7	12.8	15	11	0	1	54	8.7	1.6	1.8	1.5
7	16.4	8.2	11.1	14	13	0	2	41	5.4	2.5	3.3	1.9
8	16.4	2.6	7.9	12	8	1	9	45	5.8	1.3	1.5	1.2
9	17.1	4.6	9.8	13	7	0	0	44	5.9	2.1	3.4	1.1
10	14.6	6.4	8.9	12	10	2	15	70	6.7	1.3	2.5	0.4
11	14.2	5.0	8.7	10	8	0	12	59	6.5	2.6	3.1	2.2
12	18.5	7.6	11.5	14	9	0	11	52	8.0	2.6	3.3	2.1
13	18.5	6.8	11.5	14	10	0	6	43	6.6	2.8	4.1	1.9
14	21.5	5.5	10.9	16	10	1	8	35	6.0	1.4	1.9	1.0
15	20.7	1.2	8.7	15	7	9	13	32	5.5	0.5	1.3	0.0
16	20.6	0.7	7.8	13	6	10	13	34	5.5	0.5	1.4	0.0
17	21.4	3.2	11.4	15	7	0	2	28	5.0	1.7	3.3	0.6
18	21.7	5.0	12.1	16	11	0	3	32	5.8	1.7	3.0	0.8
19	16.9	8.2	11.3	14	12	0	11	56	7.5	1.8	2.9	1.0
20	16.3	4.1	9.3	13	8	5	12	54	6.8	1.6	3.0	0.5
21	16.0	4.9	9.3	11	8	10	17	71	8.2	1.2	2.0	0.6
22	15.2	6.5	9.4	12	9	10	13	55	6.0	1.8	2.8	1.1
23	16.1	3.4	9.2	12	7	6	8	34	4.4	1.4	2.9	0.3
24	19.1	—1.8	7.4	12	6	1	6	29	4.5	1.9	3.2	1.0
25	21.2	5.3	11.3	16	8	0	0	27	4.8	1.7	3.6	0.4
26	16.7	4.9	10.7	13	8	0	12	65	8.9	0.8	1.6	0.2
27	16.7	7.3	11.1	14	12	9	17	72	9.8	0.8	1.2	0.5
28	17.8	8.6	13.0	15	11	4	9	64	9.4	0.7	1.3	0.3
29	17.1	10.2	12.3	13	12	3	9	70	9.0	3.6	4.9	2.7
30	13.9	7.6	10.2	11	11	3	9	47	5.3	3.5	6.8	1.2
31	15.4	9.4	10.4	12	10	1	18	74	8.5	3.6	4.0	3.2
Mean	17.8	5.7	10.4	13.5	9.4	—	—	76	6.9	1.9	2.9	1.1
Highest	21.7	—	—	—	—	—	—	—	9.8	—	—	—
Date	18	—	—	—	—	—	—	—	27	—	—	—
Lowest...	—	—1.8	—	—	—	—	—	27	4.4	—	—	—
Date	—	24	—	—	—	—	—	25	23	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+\text{Min}}{4}$

Humidity at 2 metres above ground :

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 76%

Lowest relative humidity ... ... 21% on ... ... 23rd.

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 6.9 mms.

Highest value of vapour pressure ... ... 10.4 mms. on ... ... 1st.

Lowest value of vapour pressure ... ... 2.8 mms. on ... ... 23rd.

Monthly Weather Report - Ministry of War - Meteorological Department - Cairo, Egypt

TABLE C 2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES.

GIZA—JANUARY 1957.

30.02 N. Lat
31.13 E. Long
21 meters Alt.

DATE	Piche evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 metres height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	2	0.1	220	4.4	24	24	15	2	0	0	0	0	0
2	5	0.0	280	7.1	24	24	15	8	0	0	0	0	0
3	7	0.0	356	9.5	24	21	16	7	0	0	0	0	0
4	8	0.0	364	9.2	24	24	11	5	0	0	0	0	0
5	9	0.0	355	9.5	24	24	14	5	0	0	0	0	0
6	5	0.0	325	7.4	24	24	20	7	0	0	0	0	0
7	8	0.0	347	9.6	24	24	21	4	0	0	0	0	0
8	5	0.0	334	8.4	24	19	8	1	0	0	0	0	0
9	6	0.0	254	5.1	24	23	15	5	0	0	0	0	0
10	3	1.2	174	2.0	24	24	9	0	0	0	0	0	0
11	4	0.1	123	0.7	24	24	11	0	0	0	0	0	0
12	5	0.0	374	8.0	24	24	13	5	0	0	0	0	0
13	7	0.0	378	9.6	24	24	13	6	0	0	0	0	0
14	5	0.0	372	9.9	24	24	11	7	2	0	0	0	0
15	5	0.0	316	9.8	24	15	10	8	0	0	0	0	0
16	4	0.0	326	9.3	24	14	9	6	0	0	0	0	0
17	10	0.0	379	9.9	24	22	15	8	2	0	0	0	0
18	8	0.0	365	8.4	24	24	16	8	3	0	0	0	0
19	5	—	226	5.0	24	—	24	14	6	0	0	0	0
20	4	2.0	323	7.2	24	24	22	11	2	0	0	0	0
21	2	2.2	298	6.1	24	24	13	0	0	0	0	0	0
22	4	0.2	306	8.2	24	23	10	0	0	0	0	0	0
23	9	0.0	377	9.5	24	16	12	1	0	0	0	0	0
24	8	0.0	390	7.8	22	16	10	6	0	0	0	0	0
25	9	0.0	383	9.5	24	24	12	8	2	0	0	0	0
26	3	0.0	196	1.2	24	24	15	5	0	0	0	0	0
27	2	0.3	144	1.1	24	24	19	5	0	0	0	0	0
28	4	3.0	202	1.7	24	24	18	7	0	0	0	0	0
29	6	0.6	157	2.0	24	—	24	4	0	0	0	0	0
30	6	1.0	219	2.1	24	24	16	0	0	0	0	0	0
31	2	3.4	207	2.1	24	24	12	0	0	0	0	0	0
TOTAL	170	14.1	9070	201	0	0	0	0	0	0	0	0	0
Mean	5.5	—	292.6	6.5	0	0	0	0	0	0	0	0	0

Percentage of total hours of sunshine duration occured with respect to the total hours possible ... 62%
Maximum amount of rainfall in one day (24 hours) ... ... 3.4 mms. on ... ... 31st.

TABLE C 3—.SOIL TEMPERATURE AND MINIMUM AIR TEMPERATURE AT 5 cms ABOVE GROUND

GIZA—JANUARY 1957

Extreme Soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry Soil	35.0	-4.0	27.4	0.0	27.0	0.3	21.5	6.5	17.0	9.0	16.5	13.0	18.0	16.0	21.0	18.5	24.0	21.5	25.0	23.5
Wet Soil	23.5	0.5	20.8	1.0	19.5	1.0	16.5	4.0	15.0	7.0	14.0	10.0	15.0	13.0	17.0	15.5	20.0	18.5	—	—
Grass	21.5	2.0	—	—	—	—	15.0	6.5	14.0	8.0	14.5	11.0	15.5	13.5	18.0	16.0	—	—	—	—

Minimum air temperature (°C) at 5 cms. above ground:

Lowest minimum temperature over dry soil ... ... —6.2 °C on 24th.
" " " " wet soil ... ... —3.8 °C on 24th.
" " " " grass ... . —7.1 °C on 24th.

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VOLUME 48 NUMBER 2

FEBRUARY 1957

MINISTRY OF WAR—METEOROLOGICAL DEPARTMENT
CAIRO—EGYPT

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CAIRO—EGYPT

CONTENTS

Note: Refer to volume 48 number 1 for the list of stations appearing in the report and for explanatory notes on the tables.

GENERAL SUMMARY OF WEATHER CONDITIONS

FEBRUARY 1957

Rather cold first week generally; mild in the north and hot in the south rest of the month.

The main features were.

(*a*) Abnormal rainfall in scattered parts of Lower and Middle Egypt.

(*b*) An intense prevailing cold wave most of the 1st week.

(*c*) Two moderate heat waves Extreme Upper Egypt, the 1st between 12th and 24th and the 2nd started round the end of the month.

General description of weather during month.

Weather was remarkably cold all over the country most of the first week. For the rest of the month, it was changeable and rather warm over Lower Egypt; generally hot Upper Egypt. For the month as a whole, the barometric pressure was generally above normal, maximum and minimum temperatures oscillated slightly round normal; while rainfall exceeded its normal over Middle and Upper Egypt.

Pressure and Wind.

The barometric pressure over Egypt in general experienced a rapid and appreciable rise between 1st and 4th due to the considerable intensification of the high pressure belt occupying both Balkans and Mediterranean.

On the 5th the Sudan Low oscillated northwards and the barometric pressure over East Mediterranean in general, Egypt in particular fell gradually and reached its minimum on the 9th.

Between 10th and 16th two eastward travelling Central Mediterranean secondaries shooted rapidly across Asia Minor north of Cyprus. By the passage of their southern troughs round latitude 32° N. the barometric pressure over Egypt oscillated twice, though it continued in general above normal.

High pressure started to build up rapidly on the 16th over Middle East and adjacent countries and up till 20th, a high pressure belt occupied both East Mediterranean and Western Desert. Pressure over Lower Egypt continued above its normal while was slightly below normal elsewhere.

On the 21st a deep Central Mediterranean low shooted rapidly eastwards across Asia Minor and was stationary north of Cyprus till the 24th when it deepened appreciably and formed Cyprus low due to the northward oscillation of Sudan Monsoon. Such pressure distribution continued till the end of the month and caused the barometric pressure over Egypt to fall below its normal.

The prevailing winds were N/NW most of the month, light to moderate in general, fresh at times in the extreme NW coast. During scattered small intervals winds over Lower Egypt either backed to Wly by the eastward transits of Mediterranean troughs through the north coast, or to fresh stable NEly (between 16th and 20th).

Gales were reported at Port Said (A) on the 1st and at Hurghada on the 3rd.

Temperature.

During the 1st week maximum temperature was far below normal and an abnormal cold spell was experienced all over the country. Maximum temperature oscillated slightly round the normal most of the 2nd week while it continued much above normal in general the rest part of the month. Two heat waves were characterised over Lower Egypt with their maxima round 17th and 21st.

Two excessive heat waves were experienced over Upper Egypt. The first was of long duration and its peak was round the 20th, while the 2nd started round the end of the month.

Minimum temperature was below normal both Lower and Middle Egypt most of the 1st week, above normal the rest of the month. Over Upper Egypt it continued below normal during the 1st half of the month and round normal the second half.

Precipitation.

Three rainy periods were distinguished during this month viz (from 1st till 4th), (7th–9th) and (24th–26th). Rain was heavy in particular over the northern coastal area between Mersa-Matruh and Damietta. It extended southerly till Middle Egypt.

Cairo on 23/9/1957

Miscellaneous weather phenomena.

(*a*) Hail was observed at Alexandria (A) on the 9th, Mostafa Helmi (A) on the 3rd.

(*b*) Thunderstorms occurred at Mersa Matruh (A) on 3rd and 24th, Alexandria (A) on the 25th, Cairo (A) on the 9th and Mostafa Helmi (A) on the 3rd.

(*c*) Frequent early morning fog at Alexandria (A) most of the 3rd week.

(*d*) Sandstorm at Hurghada on the 1st.

M. F. Taha
Director General.

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA

FEBRUARY 1957

Region	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (° C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	20.1	—	20.5	+3.8	19.6	+3.7	19.9	+3.6	13.4	—	13.0	+0.5	19.7	+1.1	15.6	+0.7	53	—	53	−13	43	−4	69	−2
	Sidi Barrani	19.5	—	19.8	+5.0	19.3	+5.3	19.5	+5.3	11.3	—	11.3	+0.8	17.3	−1.3	13.8	−0.9	78	—	76	+13	62	+20	78	+21
	Mersa Matruh (A)	19.8	+3.2	20.1	+3.4	19.4	+3.3	19.9	+3.1	10.4	—	11.3	−0.4	17.0	0.0	12.6	−1.4	81	—	77	+2	60	0	82	+10
	Dabaa	19.6	—	17.1	—	16.2	—	16.7	—	10.7	—	9.4	—	15.1	—	11.6	—	85	—	83	—	57	—	73	—
	Alexandria (A)	19.1	+2.4	19.7	+2.6	18.7	+2.4	19.4	+2.5	10.9	−0.9	12.3	−0.3	18.7	+0.3	13.9	+0.2	83	+3	85	+9	59	+8	78	+5
	Kom el Nadura	19.7	—	20.0	—	19.1	—	19.7	—	13.7	—	13.6	+0.2	16.9	−0.8	14.9	+0.2	73	—	75	+5	62	+6	71	+4
	Dekheila (A)	19.5	—	20.0	—	19.1	—	19.3	—	11.8	—	12.3	—	16.9	—	14.1	—	83	—	82	—	66	—	78	—
	Damietta	18.9	—	19.4	+2.3	18.3	+2.0	19.1	+2.1	—	—	12.2	−0.4	17.6	+0.8	14.1	+0.9	84	—	80	+6	61	0	88	+3
	Port Said (A)	18.8	+2.4	19.2	+2.2	18.1	+2.1	18.8	+2.0	13.3	+0.1	13.5	−0.3	17.4	−0.1	14.0	−0.5	83	+6	81	+7	65	+5	77	+4
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghaza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	18.0	—	19.8	+1.6	18.7	+1.1	19.3	+1.1	10.9	—	12.9	+2.3	19.1	+0.9	12.9	+0.5	88	—	77	−4	55	+3	58	−18
	Mansoura	19.4	—	19.9	+1.9	18.4	+1.0	19.3	+1.0	10.9	—	10.9	+0.1	19.9	+1.3	14.3	+1.6	82	—	83	+4	49	0	73	−1
	Tanta	18.4	—	20.4	+4.1	19.0	+4.1	19.6	+3.8	10.0	—	10.2	−0.4	19.1	−0.6	12.1	−0.4	84	—	88	+6	54	+5	85	+10
	Shebin el Kom	17.6	—	19.8	+1.8	18.5	+1.9	19.5	+1.3	11.0	—	11.2	+0.8	19.3	−0.7	14.0	+1.0	78	—	79	+1	40	−2	65	−3
	Zagazig	19.3	—	19.6	+0.9	18.2	+1.2	18.8	+1.0	10.7	—	10.4	−0.7	19.6	−0.3	14.5	+1.4	86	—	89	+1	61	+10	88	+6
	Zaher (A)	20.1	—	20.9	—	19.0	—	19.8	—	10.6	—	11.7	—	19.3	—	14.0	—	90	—	81	—	46	—	71	—
	Wadi el Natrun	18.4	—	20.2	—	18.0	—	19.3	—	12.1	—	11.5	—	20.6	—	15.9	—	75	—	85	—	44	—	62	—
	Abu Sueir (A)	20.0	—	20.2	—	18.5	—	19.4	—	10.3	—	11.1	—	19.3	—	14.3	—	86	—	89	—	44	—	67	—
Cairo Area	Cairo (A)	19.4	+2.0	20.0	+2.1	18.2	+1.7	19.3	+2.0	11.2	−0.9	12.0	−0.2	19.0	−0.9	14.6	−0.8	83	+15	79	+11	43	+4	69	+12
	Almaza (A)	19.3	+1.7	19.9	+1.6	17.9	+1.2	19.1	+1.3	11.4	+0.3	11.9	+0.7	19.6	+0.6	15.1	+0.3	79	+9	77	+9	42	+2	64	+8
	Mostafa Helmi (A)	18.3	—	19.1	—	17.0	—	17.8	—	10.1	—	11.3	—	18.7	—	14.1	—	87	—	80	—	42	—	68	—
	Giza	19.8	—	20.5	—	18.7	—	19.5	—	9.6	—	10.8	+0.2	19.0	−0.8	13.9	+0.3	91	—	86	+10	52	+13	69	+4
	Helwan	—	—	20.3	+1.7	18.0	+1.7	19.1	+1.6	—	—	11.3	+0.2	18.8	−0.4	15.0	−0.2	—	—	79	+15	43	+10	62	+15
Upper Egypt	Fayoum	—	—	20.6	+1.8	18.2	+1.5	18.8	+1.2	—	—	11.3	+0.4	20.4	−0.2	15.0	+0.8	—	—	77	+11	40	+4	64	+5
	Beni Suef	19.8	—	20.6	+2.6	18.5	+2.7	18.9	+2.2	10.1	—	10.5	−1.7	21.4	−0.8	14.7	+0.2	75	—	73	+15	38	+6	59	+3
	Minya (A)	18.9	+1.3	19.7	+1.1	17.7	+1.1	18.0	+0.8	8.1	−0.1	9.1	−0.2	21.6	−0.2	13.5	−0.1	68	+4	75	+9	34	+4	56	+3
	Asyout (A)	19.4	—	20.7	+2.8	18.0	+1.0	18.7	+0.9	10.7	—	10.0	−1.0	20.9	+0.2	15.9	+1.5	56	—	62	−2	33	−2	46	−11
	Nag Hammadi	18.4	—	19.9	+0.7	16.9	+0.6	17.9	+0.5	10.9	—	11.9	+0.3	22.8	+1.0	15.3	+1.3	72	—	66	+7	38	+7	63	+4
	Qena	17.9	—	19.6	+1.0	16.8	+1.4	17.4	+1.1	10.6	—	12.4	+0.4	22.3	−1.5	15.9	+0.2	73	—	68	+7	40	+8	56	+3
	Luxor (A)	17.5	+1.5	19.1	+1.4	16.1	+1.6	17.0	+1.4	10.5	−0.1	12.4	−0.1	24.1	+0.8	16.6	0.0	57	+6	55	+5	30	+1	45	+3
	Aswan	17.3	—	18.7	+0.8	15.0	+0.4	16.3	+0.7	13.4	—	13.9	0.0	25.5	+0.9	20.4	+0.7	43	—	51	+6	20	−2	26	−2
Western Desert	Siwa	20.8	—	21.4	+2.1	20.2	+1.9	20.3	+2.1	9.1	—	8.0	−1.6	20.7	+0.3	14.9	0.0	60	—	67	−2	31	−18	44	−15
	Bahariya	20.2	—	21.2	+2.5	18.6	+1.1	20.0	+2.0	—	—	10.3	−0.9	21.3	+0.8	15.5	+1.1	—	—	76	−13	49	+12	59	+7
	Farafra	20.6	—	22.6	—	19.4	—	20.7	—	9.7	—	8.8	—	21.1	—	15.5	—	47	—	55	—	29	—	34	—
	Dakhla	18.9	—	21.7	+2.7	19.0	+2.3	19.7	+2.2	10.6	—	9.0	−1.2	22.0	−0.6	17.1	−0.3	31	—	40	−10	16	−11	22	−11
	Kharga	17.8	—	18.7	−0.8	16.4	−0.8	17.1	−0.8	10.2	—	11.8	−0.4	23.8	+0.7	16.4	−0.2	53	—	58	0	25	−11	36	−11
Red Sea	Suez	17.5	—	19.7	+1.4	17.7	+1.0	18.7	+1.9	12.7	—	12.5	−0.6	20.1	+0.5	16.2	+0.5	66	—	72	+3	42	−3	55	−5
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	17.1	—	18.0	+1.9	16.0	+1.6	16.8	+1.9	11.9	—	15.2	+0.1	20.8	+0.4	16.5	−0.6	56	—	49	−3	44	−10	54	−4
	Quseir	—	—	18.0	+0.9	15.6	−0.3	17.0	+0.3	—	—	17.7	−0.3	21.6	0.0	17.7	−1.1	—	—	45	−4	45	−9	61	−3

TABLE A. 2—SURFACE CLIMATOLOGICAL DATA
FEBRUARY 1957

District	Station	Air Temperature (°C)													Rainfall in mms.						Mean Evaporation Piche (mms)
		Mean Max. (A)	Dev. from Normal	Mean Min. (B)	Dev. from Normal	Daily Mean A+B / 2	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No. of days with amount of rain			
							Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				≥ 0.1	≥ 1.0	≥ 10.0	
Mediterranean	Sallum	20.8	+0.8	11.7	+1.5	16.2	28.3	16	13.4	2	7.0	1	16.0	21	0.9	0.4	1	3	0	0	10.8
	Sidi Barrani ...	18.2	−1.8	8.7	−0.4	13.4	23.7	21	13.3	1	6.2	5	11.9	23	4.9	2.1	7	2	3	0	5.5
	Mersa Matruh (A)	18.1	0.0	8.2	−0.9	13.2	22.8	15	11.5	2	5.4	20	10.5	22	59.3	26.4	7	2	2	3	5.9
	Dabaa	18.9	+0.3	8.2	+0.4	13.6	25.6	21	12.8	1.2	5.5	3	10.4	23	15.0	5.0	2	0	6	0	3.5
	Alexandria (A)	19.6	+0.6	10.0	+0.4	14.8	25.2	28	12.6	1	5.6	3	13.8	26	43.4	14.2	2	2	3	1	3.8
	Kom el Nadura	18.4	−0.7	11.8	+0.7	15.1	22.0	28	12.5	1	6.4	1	14.4	8.23	27.0	9.7	3	1	5	0	4.7
	Dekheila (A)	17.8	—	9.7	—	13.8	21.6	21	11.9	2	5.6	3	14.8	8	26.0	7.6	1	2	5	0	3.7
	Damietta	17.9	−1.1	7.7	−1.1	12.8	22.4	16.28	12.1	1	3.0	3	13.0	18	39.1	9.4	2	0	6	0	2.5
	Port Said (A)	18.8	+0.2	11.5	−0.6	15.2	23.9	16	12.2	1	6.1	2	14.8	18	34.9	13.5	2	1	4	1	3.5
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour ...	20.6	+0.3	7.6	−0.3	14.1	26.7	28	13.6	1	3.4	3	10.2	20	10.8	6.4	2	3	3	0	2.6
	Mansoura	20.8	+0.3	8.2	+0.8	14.5	27.5	28	12.3	2	2.8	3	12.5	20	4.2	1.7	3	0	3	0	2.5
	Tanta	20.9	0.0	6.4	+0.2	13.6	27.3	28	13.3	2	1.3	3	10.6	20	12.4	4.3	9	0	4	0	1.8
	Shebin el Kom ...	20.6	−0.7	8.9	+1.4	14.8	26.9	28	13.4	2	3.4	3	12.1	18	9.0	2.7	3	0	4	0	3.3
	Zagazig	21.1	+0.1	6.7	+0.1	13.9	28.0	28	11.2	2	2.5	3	10.0	28	5.0	2.0	1.2	0	3	0	2.5
	Zaher (A)	19.9	—	7.3	—	13.6	26.8	28	11.4	2	2.2	3	10.0	28	2.4	1.2	3	1	2	0	5.7
	Wadi el Natrun	21.2	−0.6	9.3	+1.5	15.2	28.0	28	12.8	2	4.3	3	12.9	19	8.5	4.5	1	0	2	0	4.3
	Abu Sueir (A)	20.0	—	8.4	—	14.2	28.3	28	11.3	2	3.0	3	12.7	18	4.1	1.5	3	1	3	0	6.0
Cairo Area	Cairo (A)	19.9	0.0	9.5	0.0	14.7	26.2	28	11.4	2	4.4	3	13.5	18	13.5	8.5	9	1	3	0	6.0
	Almaza (A)	20.7	+0.2	9.6	+0.7	15.2	27.9	28	12.0	2	4.6	3	13.5	18	12.1	9.5	8	2	2	0	4.7
	Mostafa Helmi(A)	19.5	—	8.7	—	14.1	26.4	28	13.2	3	2.9	3	12.5	28	33.2	15.2	8	1	2	2	8.4
	Giza	20.5	−0.6	7.1	+1.0	13.8	26.9	28	11.8	1	1.6	3	12.3	19	6.9	2.4	8	2	2	0	—
	Helwan	19.8	−0.4	9.6	+0.7	14.7	26.5	28	10.0	2	4.9	4	13.3	28	7.5	2.8	8	1	3	0	5.5
Upper Egypt	Fayoum	21.5	−0.5	7.9	+0.7	14.7	29.6	28	15.0	1.2	2.7	2	11.7	18	6.7	2.8	25	0	3	0	3.2
	Beni Suef ...	21.9	−0.7	5.9	−0.1	13.9	28.0	22	15.0	2	1.1	4	9.3	25	4.7	2.0	3.9	1	2	0	2.3
	Minya (A)	22.6	+0.1	5.3	−0.1	14.0	28.9	28	15.7	3	0.3	4	10.8	20	2.4	2.3	9	1	1	0	6.0
	Asyout (A)	22.4	−0.4	7.8	+0.4	15.1	29.8	28	14.2	3	3.5	3	11.8	28	tr.	tr.	3.10	0	0	0	8.0
	Nag Hammadi ...	24.0	—	6.9	—	15.4	29.3	22	15.9	3	3.1	5	11.7	18	0	0	—	0	0	0	3.3
	Qena	23.5	−1.7	6.2	−1.4	14.8	29.3	28	15.4	3	2.6	2.5	10.6	20	0	0	—	0	0	0	5.1
	Luxor (A)	25.6	+0.1	6.5	−0.3	16.0	32.5	19	15.0	3	1.6	5	11.5	25	0	0	—	0	0	0	5.9
	Aswan	26.9	+1.4	9.5	−1.1	18.2	34.5	20	17.4	3	3.2	2	14.5	18	0	0	—	0	0	0	12.9
Western Desert	Siwa	21.8	+0.4	6.2	+1.1	14.0	27.2	20	15.3	2	2.0	5	12.9	25	0	0	—	0	0	0	6.2
	Bahariya	22.5	+0.8	6.1	−0.2	14.3	29.2	28	14.6	2	1.5	4	10.6	18	tr.	tr.	8.9	0	0	0	4.5
	Farafra	22.2	+0.4	5.4	+0.8	13.8	29.6	28	14.7	2	1.2	5	10.0	25	0	0	—	0	0	0	10.0
	Dakhla	23.0	−0.9	7.3	−0.9	15.2	30.0	28	14.5	3	3.6	1	13.7	18	0	0	—	0	0	0	8.3
	Kharga	24.8	+0.8	6.4	−0.9	15.6	30.0	17	16.4	3	2.3	2	11.3	20	0	0	—	0	0	0	6.1
Red Sea	Suez	21.6	+0.5	7.0	−2.8	14.3	27.1	17.22	13.8	2	3.4	5	10.0	18	6.0	4.0	1	0	2	0	5.2
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada ...	21.8	+0.3	9.4	−1.1	15.6	24.6	23	16.2	3	3.8	3	13.2	20	0	0	—	0	0	0	12.3
	Quseir	22.5	−0.5	13.2	−1.1	17.8	25.2	22	17.3	4	6.5	4	16.5	20	0	0	—	0	0	0	14.9

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

FEBRUARY 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandrising or Dustrising	Dustorms or Sandstorms	Gales
Sallum...	3	0	0	0	0	0	0	0
Sidi Barrani	5	0	0	0	0	0	0	0
Mersa Matruh (A)	7	0	0	2	2	0	0	0
Alexandria (A)	6	0	1	1	6	2	0	0
Port Said (A)	6	0	0	0	1	0	0	1
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	—	—	—	—	—	—	—	—
Cairo (A)	4	0	0	1	0	1	0	0
Almaza (A)	4	0	0	0	0	0	0	0
Mostafa Helmi(A)	5	0	1	1	2	0	0	0
Minya (A)	2	0	0	0	0	2	0	0
Asyout (A)	0	0	0	0	1	0	0	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan	0	0	0	0	0	0	0	0
Siwa	0	0	0	0	0	0	0	0
Hurghada	0	0	0	0	0	0	1	1

TABLE A—4 NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

FEBRUARY 1957

Station	Calm	Variable	Unrecorded	Wind Speed in Knots	Number of occurrences of wind blowing from ranges of direction indicated												All Directions
					345 / 014	015 / 044	045 / 074	075 / 104	105 / 134	135 / 164	165 / 194	195 / 224	225 / 254	255 / 284	285 / 314	315 / 344	
Sidi Barrani	6	—	446	1—10	18	6	2	2	1	1	5	9	12	9	18	6	89
				11—27	34	10	—	—	—	—	—	3	12	6	11	55	131
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	52	16	2	2	1	1	5	12	24	15	29	61	220
Mersa Matruh (A) ..	34	20	—	1—10	20	5	8	9	10	10	28	43	69	58	49	45	356
				11—27	8	1	2	—	—	—	1	34	60	26	68	60	260
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				84	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	28	6	10	9	10	10	29	77	129	84	117	109	618
Alexandria (A) ...	8	4	137	1—10	30	51	30	27	14	12	12	17	29	21	48	50	341
				11—27	7	25	—	—	—	—	—	1	13	25	57	54	182
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	37	76	30	27	14	12	12	18	42	46	105	104	523
Port-Said (A) ..	—	48	75	1—10	33	51	68	32	10	3	10	30	30	28	31	13	352
				11—27	4	22	17	3	2	—	1	5	40	68	33	17	212
				28—47	—	—	—	—	—	—	—	—	—	1	4	—	5
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	37	73	80	35	12	3	11	35	70	98	68	30	549
Cairo (A) ...	5	21	12	1—10	27	25	54	64	41	35	5	16	57	36	47	36	443
				11—27	—	2	11	47	32	—	—	6	16	6	45	26	191
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	27	27	65	111	73	35	5	22	73	42	92	62	634
Almaza (A) ...	6	23	5	1—10	41	110	22	20	18	9	33	44	40	28	27	25	417
				11—27	3	84	20	5	1	3	17	7	31	34	4	3	221
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	44	194	51	25	19	12	50	51	71	62	31	28	638
Minya (A) ...	13	107	187	1—10	203	9	—	—	1	10	13	1	1	6	26	31	301
				11—27	36	3	—	—	—	1	—	—	—	—	12	12	64
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	239	12	—	—	1	11	13	1	1	6	38	43	365
Luxor (A) ...	25	109	—	1—10	34	31	10	14	18	48	67	40	23	35	66	132	518
				11—27	—	—	—	—	—	—	—	—	—	5	8	7	20
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	34	31	10	14	18	48	67	40	23	40	74	139	538
Siwa	125	72	75	1—10	8	13	19	5	2	15	8	7	16	76	77	52	298
				11—27	13	2	1	—	—	—	—	—	—	—	32	54	102
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	21	15	20	5	2	15	8	7	16	76	109	106	400
Hurghada	—	27	6	1—10	13	12	12	1	6	6	3	—	—	7	83	35	178
				11—27	114	8	—	—	2	—	—	—	—	6	165	159	454
				28—47	—	—	—	—	—	—	—	—	—	—	3	4	7
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	127	20	12	1	8	6	3	—	—	13	251	198	639

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A).— FEBRUARY 1957

Pressure Surface (millibar)	Heights of Pressure Surfaces (gpm.)				Temperature (°C)				Dew point (°C)	
	obs. at 1500 U.T.		Highest	Lowest	obs. at 1500 U.T.		Highest	Lowest	obs. at 1500 U.T.	
	N.	Mean			N.	Mean			N.	Mean
Surface	20	1009mb.	1016mb	1002mb.	20	20.5	25.2	12.7	20	7.6
1000	20	151	206	88	20	19.7	24.9	12.2	20	7.6
850	20	1520	1565	1454	20	09.7	14.5	02.3	13	— 1.9
700	20	3108	3177	3012	20	01.6	08.5	— 6.6	9	—11.0
600	20	4329	4421	4210	20	— 5.7	— 2.6	—13.8	3	—19.7
500	20	5724	5836	5584	20	—17.0	—13.7	—23.7	2	—30.5
400	19	7355	7497	7174	19	—30.0	—26.4	—37.6	5	—38.8
300	19	9337	9505	9121	19	—45.1	—43.0	—48.5	—	—
200	15	11953	12141	11772	15	—55.1	—47.8	—62.8	—	—
150	13	13813	13993	13695	13	—58.0	—55.3	—60.2	—	—
100	12	16309	16536	16206	12	—65.3	—58.8	—69.0	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N=Number of observations of specified pressure surfaces.

MERSA MATRUH (A).— FEBRUARY 1957

Pressure Surface (millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1500 U.T.		Highest	Lowest	obs. at 1500 U.T.		Highest	Lowest	obs. at 1500 U.T.	
	N.	Mean			N.	Mean			N.	Mean
Surface	26	1018mb	1028mb	1008mb.	26	16.1	21.4	8.3	26	9.7
1000	26	178	263	098	26	14.9	20.0	7.2	26	8.6
850	26	1530	1589	1440	26	5.8	11.1	— 3.1	21	— 1.6
700	26	3099	3166	2991	26	— 1.5	2.9	—13.4	8	—11.0
600	25	4308	4376	4162	25	— 9.5	— 5.1	—21.4	6	—21.6
500	25	5691	5777	5481	25	—19.3	—14.2	—30.8	5	—29.6
400	25	7311	7424	7030	25	—32.0	—27.4	—44.4	—	—
300	23	9319	9913	9043	23	—47.2	—44.1	—52.4	—	—
200	22	11836	11999	11193	22	—57.9	—51.2	—63.4	—	—
150	18	13852	13834	13529	18	—59.4	—54.0	—68.0	—	—
100	19	16173	16414	16029	19	—65.1	—54.0	—69.0	—	—
60	16	19253	19357	19101	15	—66.5	—64.0	—69.8	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N.=Number of observations of specified pressure surfaces.

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

FEBRUARY 1957

STATION	Time of observation U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm (N)	Pressure mb (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Dir (000-360)	Speed in knots
CAIRO (A)	1500	3194	695	—7.8	4080	626	—	1780	826	—0.5	11439	227	—56.4	16100	102	—63.2	10180	260	—50.6	11700	233	320	148
		(20)	(20)	(8)							(14)	(14)	(14)										
MERSA MATRUH (A)	1500	2748	734	—4.8	3530	670	—	1120	890	—2.4	11044	232	—57.9	12500	180	—66.7	8500	320	—52.4	17500	081	260	112
		(26)	(26)	(8)							(21)	(20)	(21)										

N = Total number of observations.

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).—1500 U.T.– FEBRUARY 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of observations 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)$_m$			
Surface ...	—	—	1	1	2	7	—	—	—	—	—	—	—	—	—	—	—	—	3	14	10	11	10	10	0	26	10
1000	3	8	1	5	—	—	2	6	—	—	—	—	—	—	—	—	—	—	3	10	5	9	8	9	0	22	8
850	3	11	1	11	—	—	—	—	—	—	2	5	—	—	—	—	2	15	4	14	6	11	4	18	0	22	13
700	2	14	2	10	—	—	—	—	—	—	1	12	—	—	1	9	1	20	7	11	4	20	1	9	0	19	13
600	1	11	3	14	—	—	—	—	—	—	—	—	1	19	—	—	2	12	6	23	5	19	1	5	0	19	18
500	1	12	2	24	—	—	—	—	—	—	—	—	—	—	1	24	1	13	9	23	2	18	1	12	0	17	21
400	2	16	—	—	—	—	—	—	—	—	—	—	—	—	1	31	1	21	10	33	3	20	—	—	0	17	28
300	2	22	—	—	—	—	—	—	—	—	—	—	1	22	—	—	1	28	7	39	3	27	1	26	0	15	32
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	32	7	41	1	52	1	50	0	11	41
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	57	6	56	—	—	—	—	—	7	56
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	44	3	46	—	—	—	—	—	8	45
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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.

CAIRO (A).— 1500 U.T. — FEBRUARY 1957.

Pressure Surfaces mb.	Wind between Specified Ranges of Direction (000–360)																						Calm	Total Number of observations (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			
Surface ...	1	10	2	10	3	9	4	12	—	—	—	—	—	—	—	—	—	—	1	8	3	9	6	12	0	20	11
1000	1	10	2	10	3	9	4	12	—	—	—	—	—	—	—	—	—	—	1	8	2	12	5	11	0	18	11
850	4	8	4	11	—	—	1	8	—	—	—	—	—	—	1	9	2	12	5	16	1	7	—	—	0	18	11
700	2	8	—	—	—	—	—	—	—	—	—	—	—	—	1	6	2	24	5	24	6	19	1	4	0	17	18
600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	15	3	22	7	22	5	27	1	17	0	17	23
500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	29	5	31	7	29	1	11	0	18	28
400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	39	7	35	3	33	2	29	1	16	32
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	49	9	37	2	34	3	38	0	16	39
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	43	4	52	4	46	1	39	0	10	48
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	65	2	64	3	57	1	70	0	7	64
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGROMETEOROLOGICAL STATION AT GIZA

FEBRUARY 1957

Temperature of this month was slightly above normal, as well as its rain and mean relative humidity. Frost occurrence was about the same as previous February. The heaviest frost occurred in the first week; the second half of the month was warm, and practically free of rain.

Mean temperature of this month was 0,5° above normal, while last February was 2° above normal. The absolute minimum at 2 meters height was 1.6°, i.e. practically the same as February 1956; the absolute maximum was 26.9°, and for last year it was 30.5°.

Mean relative humidity was 7% above normal, while for last February it was 10% below normal. Mean Absolute humidity was 8.4 mm against 7.0 mm for February 56. Mean wind speed at 2 meters was the same as last year.

At 0.3 cm in dry field, soil temperature attained a maximum of 45.5° and a minimum of —0.5°, while last February the corresponding values were 47° and 2°, respectively. Soil temperature mean was between 1 and 2 degrees less than last February at all levels.

The minimum temperature at 5 cm above grass fell below zero on 7 days, reaching —3.1° on the third, against —3.6° on the second of last February.

Rainfall was 6.9 mm, about 3 mm above normal, and about 1 mm more than the preceeding February.

Sunshine duration, as well as total sun and sky radiation was slightly more than February 1956.

DURATION IN HOURS OF AIR TEMPERATURE AT 5 CMS. ABOVE GRASS, UNDER CERTAIN LEVELS BELOW 0°C.

Date	3	4	5	6	13	15	16
Below 0°	4	4	2	1	2	2	3
„ —1°	3	2	0	0	0	0	0
„ —2°	2	0	0	0	0	0	0
„ —3°	0	0	0	0	0	0	0

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METERS ABOVE THE GROUND

GIZA—FEBRUARY 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed meters per second		
	Max.	Min.	Mean of the day*	Day time mean	Night time mean	>90%	>80%	Relative %	Vapour pressure (mms)	Mean	Day time mean	Night time mean
1	12.7	7.2	8.6	9	9	10	17	77	7.8	2.9	3.5	2.4
2	11.8	6.2	8.0	9	7	1	15	74	7.2	2.8	3.8	2.3
3	14.3	1.6	7.0	10	6	7	16	59	6.7	1.3	2.4	0.5
4	17.1	1.7	8.7	12	6	12	14	54	7.5	1.2	2.2	0.4
5	17.4	4.7	10.7	13	8	9	12	55	7.7	0.9	1.7	0.4
6	20.4	4.2	12.2	15	9	8	8	42	6.9	1.7	3.6	0.3
7	19.5	6.4	11.8	14	12	10	12	57	9.2	2.4	3.0	0.2
8	19.6	4.9	11.4	15	10	12	14	56	8.7	1.2	2.0	0.6
9	17.9	10.9	12.1	14	12	11	18	67	9.0	2.2	3.1	1.5
10	19.5	6.6	12.1	15	9	9	12	52	8.4	1.5	2.9	0.5
11	21.5	7.8	12.5	16	11	2	12	45	7.9	2.3	3.5	1.5
12	22.6	8.3	13.5	17	10	3	9	38	7.2	1.9	3.8	0.6
13	20.4	5.6	11.3	15	10	6	12	54	8.0	0.9	1.4	0.5
14	19.8	6.7	12.2	15	10	8	9	48	7.7	1.2	2.4	0.4
15	20.5	4.3	11.7	16	11	9	11	45	7.7	1.6	2.6	0.9
16	23.0	4.1	13.1	18	10	8	9	35	7.2	1.1	2.4	0.2
17	22.7	8.0	14.0	18	12	3	12	37	7.1	2.3	3.7	1.2
18	22.3	11.8	16.2	19	15	5	11	60	11.4	3.7	4.6	3.1
19	21.8	12.3	16.1	18	15	1	11	57	10.6	3.6	4.4	3.0
20	22.5	9.8	15.4	18	14	6	11	49	9.5	3.0	4.0	2.2
21	23.4	7.2	14.5	18	14	9	11	40	8.3	2.6	3.5	2.0
22	25.4	9.9	16.0	20	13	9	9	24	5.8	1.9	2.8	1.4
23	21.8	8.8	15.3	18	15	5	9	61	11.1	1.2	1.7	0.9
24	20.8	6.8	13.7	17	13	6	8	37	6.6	1.4	2.1	1.0
25	20.7	7.6	12.7	16	14	4	11	53	8.3	1.5	2.8	0.5
26	20.5	8.9	14.5	17	11	2	10	57	9.4	1.5	3.3	0.2
27	24.8	6.6	14.5	19	11	7	11	45	9.3	0.8	1.7	0.2
28	26.9	7.5	16.8	21	13	7	8	31	7.9	1.3	3.0	0.0
Mean	20.4	7.0	12.7	15.8	11.1	—	—	79	8.4	1.9	2.9	1.0
Highest	26.9	—	—	—	—	—	—	—	11.4	—	—	—
Date	28	—	—	—	—	—	—	—	18	—	—	—
Lowest...	—	1.6	—	—	—	—	—	24	5.8	—	—	—
Date	—	3	—	—	—	—	—	22	22	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+Min}{4}$

Humidity at 2 metre above ground:

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 79%

Lowest relative humidity ... ... 22% on ... ... 22nd.

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 8.4 mms.

Highest value of vapour pressure ... ... 11.4 mms. on 18th

Lowest value of vapour pressure ... ... 5.2 mms. on 4th

TABLE C2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES

GIZA—FEBRUARY 1957.

DATE	Piche Evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 meters height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	2	2.0	161	1.9	24	24	4	0	0	0	0	0	0
2	2	0.4	217	2.2	24	24	5	0	0	0	0	0	0
3	2	0.3	365	7.4	24	20	5	0	0	0	0	0	0
4	4	0	377	8.1	24	19	11	3	0	0	0	0	0
5	4	0	325	3.1	24	22	12	5	0	0	0	0	0
6	8	0	374	7.0	24	20	16	9	0	0	0	0	0
7	5	0	362	7.6	24	24	14	8	0	0	0	0	0
8	4	2.4	418	8.0	24	24	15	8	0	0	0	0	0
9	2	1.8	314	4.1	24	24	19	4	0	0	0	0	0
10	5	0	427	9.8	24	24	15	7	0	0	0	0	0
11	6	0	488	9.6	24	24	13	8	0	0	0	0	0
12	8	0	485	10.4	24	24	15	9	4	0	0	0	0
13	4	0	462	9.1	24	24	15	9	0	0	0	0	0
14	6	0	474	9.9	24	24	16	9	0	0	0	0	0
15	7	0	499	10.0	24	22	15	10	0	0	0	0	0
16	9	0	497	10.0	24	22	16	12	7	0	0	0	0
17	10	0	426	7.3	24	24	16	15	6	0	0	0	0
18	9	0	473	8.4	24	24	24	14	5	0	0	0	0
19	8	0	449	9.5	24	24	24	14	5	0	0	0	0
20	8	0	489	8.3	24	24	23	13	5	0	0	0	0
21	8	0	509	9.1	24	24	20	12	5	0	0	0	0
22	10	0	513	9.6	24	24	24	13	7	0	0	0	0
23	5	0	534	9.7	24	24	22	13	4	0	0	0	0
24	7	0	456	7.6	24	24	20	12	0	0	0	0	0
25	6	tr.	387	6.3	24	24	18	8	0	0	0	0	0
26	6	0	378	7.4	24	24	19	11	0	0	0	0	0
27	5	0	549	10.6	24	24	17	10	6	0	0	0	0
28	11	0	549	9.4	24	24	19	16	8	3	0	0	0
TOTAL ...	171	6.9	11957	221	672	653	452	252	62	3	0	0	0
Mean	6.1	0.2	427.0	7.9	24.0	23.7	16.1	9.0	2.2	0.1	0	0	0

Percentage of total hours of sunshine duration occurred with respect to the total hours possible...71%.
Maximum amount of rainfall in one day (24 hours) ... ... 2.4 mms. on ... ... 8th.

TABLE C 3.—SOIL TEMPERATURE AND MINIMUM AIR TEMPERATURE AT 5 cms. ABOVE GROUND

GIZA—FEBRUARY 1957.

Extreme soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry soil	45.5	—0.5	39.6	1.0	36.0	1.0	27.5	6.0	21.5	8.0	19.5	11.5	19.0	15.0	19.5	18.0	22.0	21.0	23.5	22.5
Wet soil	27.0	2.0	25.3	2.4	24.4	3.1	21.0	5.0	19.0	7.5	17.0	9.5	16.0	12.5	16.5	15.0	18.5	17.5	—	—
Grass	36.5	4.0	—	—	—	—	18.5	7.0	17.0	8.5	16.5	10.5	16.5	13.5	16.5	15.5	—	—	—	—

Minimum air temperature °C at 5 cms above ground :

Lowest minimum temperature over dry soil ... ... —2.1 °C on 3rd.

" " " " wet soil ... ... —1.0 °C on 3rd.

" " " " grass ... ... —3.1 °C on 3rd.

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MONTHLY WEATHER REPORT

VOLUME 48 NUMBER 3

MARCH 1957

MINISTRY OF WAR–METEOROLOGICAL DEPARTMENT
CAIRO–EGYPT

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CONTENTS

Note: Refer to volume 48 number 1 for the list of stations appearing in the report and for explanatory notes on the tables.

GENERAL SUMMARY OF WEATHER CONDITIONS

EGYPT—MARCH 1957

Changeable and rainy with four consecutive heat waves.

The main features were :

(*a*) Abnormal rainfall Lower Egypt.

(*b*) Four variant heat waves, the 3rd of which was excessive.

(*c*) Four eastward travelling disturbances through East Mediterranean

General description of weather.

In general weather was cold most of the first two weeks, hot both the third and fourth weeks and rather cold the rest of the month.

For the month as a whole the barometric pressure was below normal; maximum and minimum temperatures were oscillating round normal.

The monthly rainfall exceeded highly its normal in the Mediterranean and Lower Egypt districts.

The Mean daily relative humidity was 65% at Alexandria (Kom el Nadura), 62.8% at Giza and 46.2% at Helwan.

Pressure and wind.

At the beginning of the month pressure gradient was loose in general over East Mediterranean, and a shallow Cyprus depression appeared. On the 2nd it experienced a slight deepening and then it started to move slowly towards Iraq. Up till the 5th the barometric pressure over Egypt was below normal.

On the 6th a central Mediterranean secondary was located. By the 8th it slightly deepened while started its eastward displacement and reached Cyprus round the 10th, when the barometric pressure over Egypt reached its 2nd minimum.

The high pressure cell over Western Desert built up rapidly afterwards and the barometric pressure over Egypt rose appreciably between 15th and 17th while it continued above normal till the 19th.

A travelling desert depression proceeding from Tunisia reached gulf of Serte on the 18th and continued slowly its course eastwards; while at the same time the Sudan monsoon oscillated gradually Northwards. On the 20th cyclogenesis developed over East Mediterranean in general and Egypt in particular as a result of the combination of the last two motion profiles and shallow secondary centres appeared over both Upper and Lower Egypt. Such process reappeared on the 27th when loose pressure gradient extended from central Mediterranean trough SE/ly towards SE Mediterranean and continued till the end of the month. During this period the atmospheric pressure over Egypt was generally below normal and a remarkable fall was distinguished round the 22nd.

The prevailing winds were NW/ly most of the month light/moderate in general, fresh at times in the extreme NW coast. Short scattered durations of either W/ly or NE/ly components were distinguished over Lower Egypt accompanying the changes in the pressure field.

Gales were reported at Mersa Matruh on (29th, 30th), Alexandria on the 29th, Abu-Sueir on (6th, 29th), Almaza on 29th and Siwa on the 28th.

Temperature.

Maximum temperature started below normal the first two weeks. It rose gradually above normal most of the next two weeks, and continued below normal once more the rest of the month.

Four consecutive heat waves were experienced, of which the 2nd, and 3rd were excessive, specially over Upper Egypt.

Minimum temperature was generally below normal the first half of the month, but during the 2nd half it was oscillating round normal over Lower Egypt and above normal Upper Egypt.

Precipitation.

Four rainy periods were distinguished viz (1st - 6th), (10th - 14th), (20th - 22nd) and (28th - 30th).

Rain was heavy and confined to Lower Egypt where the monthly values exceeded considerably the normals.

Miscellaneous weather phenomena.

(*a*) Thundery activity developed over Sallum on the 22nd, Sidi-Barrani on (22nd, 28th) ; Mersa Matruh on (5th, 23rd), Alexandria on (5th, 10th, 12th, 13th), Port Said on (11th, 23rd), Abu Sueir on 11th, Damanhour on 13th and Helwan on 12th.

(*b*) Hail was reported at Sidi Barrani on the 5th and at Damanhour on the 12th.

(*c*) Sandstorms occurred at Abu Sueir on (6th, 28th, 29th), Cairo on the 29th, Mostafa Helmi on (6th, 29th), Aswan on the 29th and Siwa on the 28th.

(*d*) Early morning fog developed at Mersa Matruh on the 25th, Alexandria on (22nd, 26th), Cairo on (25th, 26th), Almaza on 20th and Mostafa Helmi on the 26th.

Cairo on 13/2/1958.

M. F. Taha
Director General
Meteorological Department

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA

MARCH 1957

District	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (°C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	14.6	—	14.9	— 0.7	14.3	— 0.7	14.7	— 0.4	12.9	—	13.4	— 1.1	19.4	— 0.4	15.3	— 0.6	67	—	61	— 2	46	— 1	64	+ 2
	Sidi Barrani	14.0	—	14.2	— 0.9	14.0	— 0.7	14.2	— 0.5	11.9	—	12.7	— 1.0	17.3	— 1.6	14.6	— 0.6	73	—	71	+ 6	60	+10	69	+ 3
	Mersa Matruh (A)	14.3	— 1.4	14.6	— 1.3	14.2	— 1.3	14.6	— 1.3	11.7	—	13.2	— 1.1	18.1	0.0	13.7	— 1.7	84	-	78	+ 5	57	— 6	80	+ 6
	Dabaa	13.8	—	14.0	—	13.6	—	13.8	—	12.1	—	13.3	—	18.9	—	14.2	—	84	—	76	—	51	—	77	—
	Alexandria (A)	13.6	— 1.6	14.2	— 1.5	14.0	— 1.1	14.2	— 1.3	13.0	— 0.2	14.7	— 0.3	19.9	+ 0.2	15.2	— 0.2	85	+ 7	80	+ 9	58	+ 7	74	+ 1
	Kom el Nadura	14.3	—	14.5	— 1.0	14.3	— 0.7	14.6	— 0.9	14.4	—	14.7	— 0.7	18.1	— 1.4	15.8	0.0	75	—	75	+ 6	62	+ 7	69	0
	Dekheila (A)	13.9	—	14.2	—	14.2	—	14.1	—	12.9	—	14.2	—	18.1	—	14.8	—	82	—	76	—	63	—	75	—
	Damietta	14.3	—	14.4	— 1.2	13.9	— 1.2	14.3	— 1.3	—	—	14.5	— 1.4	19.4	+ 1.1	15.6	+ 0.6	84	—	82	+ 8	57	— 3	80	+ 3
	Port Said (A)	13.6	— 1.6	14.0	— 1.7	13.6	— 1.4	14.0	— 1.4	15.0	+ 0.1	16.0	+ 0.3	19.2	+ 0.4	16.3	0.0	81	+ 4	74	+ 2	60	0	75	+ 3
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	15.1	—	14.4	— 1.9	14.0	— 0.8	14.3	— 1.9	11.7	—	15.1	+ 0.9	21.2	+ 0.9	14.9	+ 1.0	85	—	77	+ 1	50	+ 3	77	+ 5
	Mansoura	14.2	—	14.3	— 1.2	13.8	— 0.8	14.2	— 1.3	13.4	—	14.7	+ 0.5	21.9	+ 0.8	16.1	+ 1.6	79	—	74	— 1	44	+ 2	68	— 4
	Tanta	14.6	—	15.4	— 0.7	14.5	— 0.1	14.9	— 0.6	12.2	—	14.1	+ 0.1	22.1	— 0.3	14.5	0.0	83	—	77	+ 0	44	0	79	+ 5
	Shebin el Kom	14.0	—	14.9	— 1.4	13.6	— 1.5	14.3	— 1.7	13.5	—	14.6	+ 1.3	22.3	— 0.2	16.1	+ 1.3	74	—	71	— 3	33	— 5	57	—10
	Zagazig	13.5	—	14.4	— 2.0	13.5	— 1.5	13.8	— 2.1	13.8	—	13.5	— 1.1	22.4	— 0.2	17.0	+ 1.9	80	—	77	+ 1	53	+ 8	76	+ 2
	Zaher (A)	15.2	—	15.6	—	14.3	—	15.0	—	13.3	—	15.1	—	22.7	—	17.0	—	76	—	66	—	33	—	54	—
	Wadi el Natrun	15.1	—	15.1	— 0.5	12.7	— 1.2	14.4	— 0.6	14.2	—	15.0	+ 0.8	24.0	+ 1.6	17.9	+ 0.2	76	—	69	+ 2	31	— 1	54	+ 1
	Abu-Sueir (A)	14.4	—	15.0	—	13.7	—	14.5	—	13.2	—	15.0	—	23.4	—	18.3	—	73	—	65	—	29	—	47	—
Cairo Area	Cairo (A)	14.0	— 1.6	14.9	— 1.2	13.3	— 1.0	14.0	— 1.5	14.3	+ 0.7	15.5	+ 0.7	22.6	0.0	17.6	+ 0.1	64	— 6	58	— 7	28	— 7	49	— 6
	Almaza (A)	14.0	— 1.9	14.7	— 1.9	13.4	— 1.6	14.1	— 1.7	14.6	+ 0.9	16.0	+ 1.2	23.5	+ 1.1	18.3	+ 0.6	62	— 6	56	— 6	27	— 9	46	— 7
	Mostafa Helmi (A)	13.1	—	14.1	—	12.3	—	13.2	—	13.2	—	14.5	—	22.4	—	17.1	—	67	—	56	—	26	—	46	—
	Giza	15.0	—	15.6	— 0.6	14.3	— 0.3	14.6	— 0.9	12.1	—	14.3	+ 0.3	22.7	— 0.4	17.1	+ 0.6	83	—	68	— 5	31	— 5	51	—10
	Helwan	—	—	15.2	— 1.5	13.6	— 1.0	14.0	— 1.5	—	—	14.5	+ 0.3	22.4	— 0.1	18.2	+ 0.1	—	—	61	0	29	+ 1	45	+ 2
Upper Egypt	Fayoum	14.7	—	15.9	— 1.1	14.1	— 0.7	13.9	— 1.5	13.7	—	15.7	+ 1.2	23.8	+ 0.2	18.0	+ 0.8	—	—	61	— 1	33	+ 2	51	— 2
	Beni Suef	14.6	—	15.9	— 0.3	14.4	+ 0.1	14.5	— 0.2	—	—	15.2	— 0.3	24.8	+ 0.2	17.6	+ 0.4	56	—	54	0	19	—10	51	+ 1
	Minya (A)	13.4	— 2.2	14.7	— 1.8	12.8	— 1.9	12.7	— 2.1	11.1	+ 1.1	13.7	+ 0.3	25.3	+ 0.4	16.9	+ 0.3	61	+ 3	58	— 4	21	— 5	46	— 3
	Asyoût (A)	14.7	—	16.3	— 0.2	14.0	0.0	14.3	+ 0.3	14.8	—	15.1	+ 0.4	24.6	— 0.2	19.2	+ 0.8	32	—	37	—21	19	— 8	30	—16
	Nag Hammadi	14.6	—	16.4	— 0.6	13.4	— 0.4	14.0	— 0.4	14.3	—	15.6	— 0.2	26.2	+ 0.5	18.4	+ 0.4	65	—	48	— 4	27	+ 5	50	+ 2
	Qena	13.9	—	15.8	+ 0.3	13.4	+ 1.0	13.6	+ 0.1	13.6	—	17.6	+ 0.5	26.1	— 2.3	19.0	— 1.2	61	—	47	— 3	28	+ 4	45	+ 5
	Luxor (A)	13.6	— 0.1	15.1	— 0.1	12.5	+ 0.2	13.0	0.0	14.5	+ 0.2	17.3	— 0.1	27.2	— 0.1	19.9	— 0.6	41	— 2	41	0	21	— 1	36	+ 2
	Aswan	13.4	—	15.0	— 0.4	11.8	— 0.1	12.5	— 0.5	16.5	—	17.7	— 0.6	28.8	— 0.6	23.8	— 0.4	36	—	35	— 1	14	— 4	19	— 3
Western Desert	Siwa	15.4	— 0.4	16.2	— 0.5	15.0	— 0.4	14.9	— 0.3	11.5	— 0.9	11.2	— 1.3	22.8	— 0.7	17.5	— 1.1	54	+ 2	61	+ 1	24	— 4	34	— 4
	Bahariya	15.3	—	16.4	— 1.3	14.4	— 1.4	14.8	— 1.8	—	—	13.8	— 0.3	23.6	— 0.1	17.8	+ 0.4	—	—	61	+ 1	39	+ 8	49	+ 5
	Farafra	16.2	—	17.9	—	15.9	—	16.0	—	13.0	—	12.6	—	23.8	—	17.6	—	49	—	38	—	21	—	27	—
	Dakhla	15.2	—	17.6	+ 1.0	15.4	+ 1.2	15.4	+ 0.4	13.9	—	13.0	— 1.8	24.9	— 1.0	20.5	— 0.4	24	—	29	—14	15	— 8	17	—10
	Kharga	13.6	—	14.7	— 2.1	12.7	— 2.0	12.8	— 2.3	13.4	—	16.2	— 0.7	27.0	— 0.2	19.4	— 1.2	42	—	43	— 6	20	— 9	29	— 9
Red Sea	Suez	14.4	—	15.1	— 0.4	13.8	— 0.9	14.3	— 0.5	16.8	—	16.9	+ 1.2	23.5	+ 1.0	19.6	+ 1.6	63	—	58	—10	33	— 7	42	—15
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	12.9	—	14.0	— 0.4	12.5	— 0.2	12.9	— 0.1	14.4	—	19.5	+ 1.2	24.0	+ 2.0	19.7	0.0	49	—	40	—10	38	—17	54	— 3
	Quseir	—	—	14.2	— 0.8	12.9	— 1.1	13.3	— 0.7	—	—	20.9	— 0.1	23.4	0.0	20.5	— 0.5	—	—	35	—12	45	—12	55	— 3

TABLE A 2.—SURFACE CLIMATOLOGICAL DATA
MARCH 1957

District	Station	Air Temperature (°C)													Rainfall in Millimetres						Mean Evaporation Piche (mms)
		Mean Max.		Mean Min.		Daily Mean A+B 2	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No. of days with amount of rain			
		Mean (A)	Dev. from Normal	Mean (B)	Dev from Normal		Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				≥ 0.1	≥ 1.0	≥ 10.0	
Mediterranean	Sallum	20.5	—0.7	11.3	+0.9	15.9	30.6	20	15.0	13	5.6	4	16.0	19·20	31.6	13.9	22	3	4	1	9.8
	Sidi Barrani	18.9	—1.0	9·9	—0·3	14.4	30.2	20	14.5	12	4.2	3	14.5	27	38.9	15.9	22	6	6	1	5.7
	Marsa Matruh (A)	19.7	—0.1	9.3	—1.6	14.5	26.2	26	15.5	3	4.7	4	13.7	19	34.6	6.5	11	5	8	0	6.7
	Dabaa	20.2	—	9.3	—	14.8	30.4	20	15.4	6	5.0	4	14.0	24	50.0	20.0	11	0	4	2	5.2
	Alexandria (A)	20.9	+0.2	11·7	+0.5	16.3	31.6	20	15.9	5	7.9	6	17.7	27	46.3	12.5	5	7	5	2	3.9
	Kom el Nadura	19.8	—1·4	12.7	—0.2	16.2	29.3	20	15.3	4·5	8.2	6	16.4	28	49.3	18.9	12	5	7	1	5.4
	Dekheila (A)	19.2	—	11·0	—	15.1	29.3	20	15.2	4	7.1	13	16.0	28	38.8	14.7	10	6	6	1	4.3
	Damietta	19.9	—1.2	9.4	—1.8	14.6	26.7	20·21	13.4	6	4.3	5	15.0	20·21·28	31.5	13.0	30	1	5	1	3.0
	Port Said (A)	21.6	+1.7	13.1	—0.4	17.4	28.2	27	16.9	6	7.7	6	18.0	21	15.8	4.2	13	9	4	0	4.7
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	22.7	0.0	9·6	—0.1	16.2	31.1	27	16.6	13	5.2	5	15.6	29	29.9	10.7	5	2	7	1	3.7
	Mansoura	23.1	0.0	9.8	+0.4	16.4	31.2	27	16.5	6	5.0	4	16.0	21	9.5	4.0	6·13	0	3	0	3.4
	Tanta	23.7	0.0	9.1	+0.1	16.4	30.2	19·27	17.6	6·14	4.2	5	15.0	21	7.8	2.9	14	1	3	0	3.0
	Shebin el Kom	23.4	—0·5	11.2	+2.0	17.3	31.8	19	17.2	6	6.6	5	17.4	21	5.3	2.4	6·4	0	3	0	4.2
	Zagazig	24.3	+0.6	9.5	+0.8	16.9	31.5	19	18.5	6	4.7	5	14.5	21	7.5	2.5	6	0	5	0	3.5
	Zaher (A)	23.4	—	9·4	—	16.4	32.4	19	16.2	6	5.2	5	14.5	1·23	6.0	4.6	11	3	1	0	9.3
	Wadi el Natrun	24.3	—0·5	11.3	+1.7	17.8	34.8	19	16.8	14	6.6	5	17.5	20	4.0	2.0	11·13	0	2	0	7.4
	Abu Sueir (A)	24.2	—	10.9	—	17.6	33.6	19	16.0	6	5.7	5	17.6	20	3.8	1.8	7	4	1	0	9.0
Cairo Area	Cairo (A)	23.7	+0.1	12.3	+2.0	18.0	32.5	19	17.2	6	8.0	5·6	18.2	20	2.1	1.4	11	2	1	0	10.2
	Almaza (A)	24.9	+1.5	12.2	+1.1	18.6	34.6	19	17.9	6	7.4	5	19.1	20	2.7	1.2	12	3	2	0	6.8
	Mostafa Helmi (A)	23.5	—	11.3	—	17.4	35.1	19	16.6	14	6.2	5	19.0	20	3.8	2.1	12	3	1	0	13.2
	Giza	24.0	—0.1	9.6	+1.4	16.8	33.5	19	18.0	6	4.2	5	15.9	21	4.1	2.8	12	3	1	0	—
	Helwan	23.4	—0.3	12.0	+0·9	17.7	33.4	19	16.8	6	7.1	6	19.5	20	3.4	2.0	12	3	1	0	8.2
Upper Egypt	Fayoum	25.8	+0.9	10.2	+0.5	18.0	33.8	19	19.6	13	5.3	6	17.6	20	tr.	tr.	2·11	0	0	0	4.3
	Beni Suef	25.3	+0.3	9·4	+1·3	17.4	34.1	28	19.7	6·13	4.5	4	17.3	20	tr.	tr	25	0	0	0	4.3
	Minya (A)	26.2	+0.8	8·0	+0.2	17.1	34.1	19·28	20.1	5	2.8	5	17.6	20	0	0	—	0	0	0	8.6
	Asyoût (A)	25.8	—0·7	11.7	+1.5	18.8	35.0	19	18.5	6	6.3	6	18.0	21	0	0	—	0	0	0	12.7
	Nag Hammadi	27.2	+0.1	10.2	+1.2	18.7	36.3	19	19.7	6	5.3	7	17.3	21	0	0	—	0	0	0	5.6
	Qena	27.4	—2.7	9.4	—1.8	18.4	36.4	19	19.8	6	3.3	6	18.0	20	0	0	—	0	0	0	6.7
	Luxor (A)	28.3	—0·8	10.7	0.0	19.5	36.4	20	21.6	14	4.8	8	16.5	20	0	0	—	0	0	0	9.4
	Aswan	29.9	—0.4	12.6	—1.8	21.2	37.7	19	20.7	6	5.5	7	19.9	21	0	0	—	0	0	0	16.7
Western Desert	Siwa	23.8	—0·8	8.4	—0.8	16.1	32.9	28	17.0	4	3.8	6·8	13.8	20	1.2	0.9	1	3	0	0	9.6
	Bahariya	24.8	—0·5	8·4	—0.4	16.6	34.0	19	18.3	3·14	3.2	8	19.6	20	tr.	tr.	2·20	0	0	0	7.3
	Farafra	25.0	—	8·0	—	16.5	34.0	28	18.0	6	1.0	7	18.5	20	0	0	—	0	0	0	12.0
	Dakhla	26.1	—1.2	9·3	—0.7	17.7	34.0	19·28	19.3	6	2.3	7	18.2	21	0	0	—	0	0	0	11.2
	Kharga	27.8	—0·3	9.7	—1.6	18.8	35.7	19	20.4	6	3.5	8	17.5	21	0	0	—	0	0	0	7.9
Red Sea	Suez	25.1	+1·0	10.1	—1.8	17.6	32.4	21	19.4	6	4.5	17	17.9	21	8.0	3.0	12	0	4	0	7.2
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurgada	24.9	+1.7	11.8	—0.8	18.4	30.6	28	20.0	6	7.5	7·9	19.5	21	tr.	tr.	20	0	0	0	12.8
	Quseir	25.0	+0.2	15.5	—1.0	20.2	31.8	20	20.4	7	11.1	6	20.9	21	0	0	—	0	0	0	15.9

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

MARCH 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandrising or Dustrising	Dustorms or Sandstorms	Gales
Sallum	7	0	0	1	0	0	0	0
Sidi Barrani	13	0	1	2	0	0	0	0
Mersa Matruh (A)	13	0	0	2	1	1	0	2
Alexandria (A)	14	0	0	4	2	0	0	1
Port Said (A)	13	0	0	2	0	2	0	0
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	5	0	0	1	0	5	3	2
Cairo (A)	3	0	0	0	2	0	1	0
Almaza (A)	5	0	0	0	1	2	0	1
Mostafa Helmi (A)	4	0	0	0	1	0	2	0
Minya (A)	0	0	0	0	0	0	0	0
Asyoût (A)	0	0	0	0	0	0	0	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan	0	0	0	0	0	0	1	0
Siwa...	3	0	0	0	0	0	1	1
Hurghada	0	0	0	0	0	1	0	0

TABLE A 4.—NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

MARCH 1957

STATION	Calm	Variable	Unrecorded	Wind Speed In Knots	Number of Occurrences of wind blowing from the ranges of directions indicated in degrees from the north												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	
Sidi Barrani	0	0	385	1–10	4	3	5	2	1	—	1	—	6	6	5	8	41
				11–27	23	15	27	20	22	8	18	6	16	15	43	90	303
				28–47	6	—	—	—	—	—	—	—	—	—	—	9	15
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**33**	**18**	**32**	**22**	**23**	**8**	**19**	**6**	**22**	**21**	**48**	**107**	**359**
Mersa Martuh (A)	10	9	0	1–10	12	10	10	26	35	15	16	31	73	34	20	24	306
				11–27	8	26	9	8	5	3	3	19	90	73	83	86	413
				28–47	—	—	—	—	—	—	—	—	—	—	6	—	6
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**20**	**36**	**19**	**34**	**40**	**18**	**19**	**50**	**163**	**107**	**109**	**110**	**725**
Alexandria (A)	0	5	125	1–10	16	26	17	19	28	31	15	12	16	14	39	82	315
				11–27	8	6	15	4	4	1	—	2	17	61	92	79	289
				28–47	—	—	—	—	—	—	—	1	5	4	—	—	10
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**24**	**32**	**32**	**23**	**32**	**32**	**15**	**15**	**38**	**79**	**131**	**161**	**614**
Port-Said (A)	1	29	24	1–10	31	31	35	30	33	5	13	12	28	48	29	27	322
				11–27	15	13	38	36	1	—	6	16	79	91	32	29	356
				28–47	—	—	—	—	—	—	—	5	6	1	—	—	12
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**46**	**44**	**73**	**66**	**34**	**5**	**19**	**33**	**113**	**140**	**61**	**56**	**690**
Cairo (A)	6	43	5	1–10	30	22	26	33	30	50	17	21	51	52	80	84	496
				11–27	3	—	2	9	10	—	3	6	21	31	62	47	194
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**33**	**22**	**28**	**42**	**40**	**50**	**20**	**27**	**72**	**83**	**142**	**131**	**690**
Almaza (A)	8	12	7	1–10	36	53	25	33	30	13	26	52	65	63	54	47	497
				11–27	1	11	2	8	8	5	15	31	43	74	13	2	213
				28–47	—	—	—	—	—	—	—	4	3	—	—	—	7
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**37**	**64**	**27**	**41**	**38**	**18**	**41**	**87**	**111**	**137**	**67**	**49**	**717**
Minya (A)	61	185	127	1–10	78	13	—	—	1	7	26	6	8	41	43	64	287
				11–27	14	—	—	—	—	—	1	2	1	22	18	26	84
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**92**	**13**	—	—	**1**	**7**	**27**	**8**	**9**	**63**	**61**	**90**	**371**
Luxor (A)	24	54	1	1–10	38	26	24	21	26	41	46	38	38	57	150	126	631
				11–27	—	2	—	—	—	—	—	—	7	6	12	7	34
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**38**	**28**	**24**	**21**	**26**	**41**	**46**	**38**	**45**	**63**	**162**	**133**	**665**
Siwa	47	8	9	1–10	20	9	4	24	30	47	15	12	24	67	103	65	420
				11–27	15	2	1	9	3	3	11	3	6	11	84	105	253
				28–47	—	—	—	—	—	—	—	—	2	1	1	3	7
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**35**	**11**	**5**	**33**	**33**	**50**	**26**	**15**	**32**	**79**	**188**	**173**	**680**
Hurghada	5	42	35	1–10	19	22	32	12	27	41	6	3	5	20	106	19	312
				11–27	62	14	1	—	8	5	2	1	1	20	104	123	341
				28–47	—	—	—	—	—	—	—	—	—	—	—	9	9
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**81**	**36**	**33**	**12**	**35**	**46**	**8**	**4**	**6**	**40**	**210**	**151**	**662**

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A).—MARCH 1957.

Pressure Surface mb.	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1500 UT.		Highest	Lowest	obs. at 1500 U.T		Highest	Lowest	obs. at 1500 U.T	
	N	Mean			N	Mean			N	Mean
Surface	30	1006 gpm	1014 mb	1001 mb	30	22.0	31.0	14.0	30	4.9
1000	30	123	189	79	30	21.6	30.2	13.6	28	4.7
850	30	1500	1562	1447	30	9.4	19.2	0.4	26	— 2.2
700	29	3088	3174	3003	28	1.0	5.4	— 8.4	17	— 9.8
600	25	4282	4412	4195	25	— 9.1	— 3.2	—15.3	9	—16.0
500	23	5689	5827	5551	23	—18.5	—13.4	—25.6	7	—27.0
400	20	7298	7485	7134	20	—30.4	—24.8	—36.2	4	—41.0
300	13	9269	9488	9081	13	—44.8	—40.6	—50.0	1	—44.0
200	7	11948	12111	11834	7	—51.9	—43.0	—60.0	—	—
150	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N=Number of observations of specified pressure surfaces.

MERSA MATRUH (A).—MARCH 1957.

Pressure Surface mb.	Heights of presure surfaces (gmp.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1500 UT.		Highest	Lowest	abs. at 1500 U.T		Highest	Lowest	obs. at 1500 U.T	
	N	Mean			N	Mean			N	Mean
Surface	21	1010 mb	1018 mb	1005 mb	21	16.8	21.4	10.4	21	9.2
1000	21	128	199	73	20	14.8	20.6	9.2	19	8.6
850	20	1492	1550	1435	20	6.4	15.0	— 2.4	16	0.0
700	21	3060	3167	2954	21	— 3.8	5.0	—12.6	14	— 5.3
600	21	4242	4395	4114	21	—13.1	— 5.4	—20.9	6	—16.0
500	20	5606	5805	5434	20	—23.2	—14.9	—31.5	6	—27.4
400	20	7249	7458	6988	20	—32.6	—25.6	—39.7	6	—37.5
300	18	9223	9473	8920	18	—45.6	—41.3	—50.8	—	—
200	18	11839	12103	11530	18	—52.0	—40.9	—63.0	—	—
150	18	13673	13939	13367	18	—56.8	—52.9	—64.5	—	—
100	17	16111	16314	15908	17	—63.9	—56.0	—72.1	—	—
60	9	19272	19373	19172	9	—64.4	—60.3	—68.6	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N = Number of observations of specified pressure surfaces.

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

ASWAN.—MARCH 1957.

Pressure Surface (millibar)	Heights of pressure surfaces (gmp.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1500 U.T		Highest	Lowest	obs. at 1500 U.T		Highest	Lowest	obs. at 1500 U.T	
	N	Mean			N	Mean			N	Mean
Surface	26	999 mb	1005 mb	995 mb	26	27·6	34·8	18,5	26	1,1
1000	12	151	178	135	12	24·2	33·1	18·5	6	— 1·1
850	27	1530	1572	1441	27	14·7	20·3	6·0	14	— 1·5
700	27	3143	3279	3093	27	4·6	9·6	0·1	—	—
600	27	4378	4536	4274	27	— 0·5	5·4	— 8·8	—	—
500	27	5798	6003	5666	27	—11·3	— 8·1	—19·5	—	—
400	27	7467	7681	7316	27	—24·4	—20·5	—28·8	—	—
300	26	9527	9840	9309	26	—39·3	—32·0	—59·0	—	—
200	24	12151	12866	11994	24	—51·0	—48·9	—57·5	—	—
150	23	14047	14685	13796	23	—65·5	—57·4	—7·08	—	—
100	21	16489	17201	16236	21	—71·2	—65·0	—77·4	—	...
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N=Number of observations of specified pressure surfaces.

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

MARCH 1957

STATION	Time of obs. U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm. (N)	Pressure mb. (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Direction 000-360	Speed in knots
Cairo (A)	1500	2892	720	—5.0	4000	634	—	1550	845	—1.2	9979	271	—50.1	10950	236	—55·7	8720	316	—44.0	14250	139	260	192
		(27)	(27)	(18)							(8)	(8)	(8)										
Mersa Matruh (A)	1500	2415	761	—6.2	3800	647	—	1150	886	—4.8	10585	244	—56.0	12200	195	—63.3	8270	334	—49·5	7600	364	260	104
		(22)	(22)	(16)							(19)	(19)	(19)										
Aswan	1500	3854	642	—	4700	590	—	3100	696	—	15345	123	—68.1	17650	080	—80.0	12400	192	—53.0	7000	424	250	149
		(26)	(26)								(15)	(14)	(8)										

N = Total number of observations.

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

CAIRO (A).—1500 U.T.—MARCH 1957.

Pressure Surfaces (mb.)	Wind between specified ranges of Direction (000–360)																						Calm	Total number of observations 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			
Surface ...	10	10	—	—	—	—	2	10	—	—	—	—	1	4	—	—	1	17	3	12	3	11	9	14	0	29	12
1000	10	10	—	—	—	—	1	5	—	—	—	—	1	4	—	—	1	17	3	12	3	11	9	14	0	28	12
850	4	12	—	—	—	—	—	—	—	—	1	5	1	8	2	14	7	18	7	16	3	23	2	11	0	27	15
700	3	20	—	—	—	—	—	—	—	—	—	—	—	—	5	24	4	32	3	19	5	25	3	15	0	23	23
600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	24	6	43	1	24	6	28	4	28	0	20	31
500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	25	3	38	4	30	6	41	1	51	0	15	37
400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	31	3	49	2	50	4	55	1	70	0	11	52
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	38	3	51	1	43	4	74	—	—	0	9	59
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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)—1500 U.T.—MARCH 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000–360)																						Calm	Total Number of observations	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			
Surface	4	11	—	—	—	—	1	12	—	—	—	—	—	—	1	12	1	17	2	16	9	19	3	7	0	21	15
1000	—	—	1	17	—	—	1	3	1	3	—	—	—	—	—	—	2	6	3	15	4	13	5	8	0	17	10
850	3	10	—	—	—	—	—	—	1	5	—	—	1	7	1	14	3	18	5	18	2	15	4	12	0	20	14
700	—	—	2	6	—	—	—	—	—	—	—	—	—	—	3	12	4	29	6	16	1	30	4	17	0	20	18
600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	13	5	35	7	32	4	23	2	18	0	20	28
500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	38	4	36	5	24	3	26	1	22	0	15	29
400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	24	2	41	3	44	5	36	—	—	0	12	33
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	25	3	45	2	44	—	—	0	7	39
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	31	4	54	—	—	—	—	0	5	49
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

ASWAN—1500 U.T.—MARCH 1957.

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total number of observations (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)$_m$			
Surface ...	15	10	—	—	3	12	—	—	—	—	—	—	—	—	—	—	—	—	3	8	1	9	2	14	3	27	9
1000	7	9	—	—	1	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	11	1	12	1	11	10
850	2	11	1	14	1	2	2	9	1	8	—	—	—	—	1	9	3	11	6	11	6	16	3	17	0	26	12
700	1	14	—	—	—	—	1	4	1	8	1	4	—	—	2	18	9	17	5	19	3	12	3	18	0	26	16
600	1	50	—	—	2	11	—	—	—	—	—	—	—	—	2	27	6	15	12	25	2	4	—	—	0	25	21
500	—	—	—	—	—	—	1	6	—	—	—	—	—	—	—	—	15	33	8	25	1	27	—	—	0	25	29
400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	48	10	59	4	45	—	—	0	24	52
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	49	6	78	12	63	2	94	—	—	0	21	61
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	118	7	83	1	78	—	—	0	11	92
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGROMETEOROLOGICAL STATION AT GIZA

MARCH 1957

This month was warmer than the corresponding month of 1956. Its mean temperature being higher by less than one degree. Its extreme maximum temperature was higher than last year's by 5 degrees, while its extreme minimum temperature remained practically the same. We can see that mean temperature of the air at 2 meters rose by 2.5 degrees between February and March 1957 while for the same period in 1956 the rise was 0.4 degrees only.

March 1957 was more rainy than 1956. 4.1 mm. of rain fell during this month, while in the previous March all that fell was traces. But the mean relative humidity did not change, having the value of 64% in both March 1956 and March 1957. It is to be noted that all the rain fell in the rainy period from 10th to 14th except some traces in 5 scattered days.

Absolute humidity was higher this year than last year's mean and extreme values. Mean wind speed at 2 meters dropped from 2.4 m/s. last March to 1.8 m/s. for March 1957.

Frost recurrence differed materially from that of March 1956. During this month it occurred in the first week while in last March it occurred on the last day of the month. This year's frost was heavier, compared with past years.

At 0.3 cm in dry field soil temperature attained a maximum of 56°C and a minimum of 4.5°C, both maximum and minimum being 1°C higher than last year's values.

Sunshine duration was slightly more than last year's, while the total sun and sky radiation was slightly less.

Note:

Temperature at 5 cms above grass, reached the minimum of:

—1.1°C on 4th, and stayed below O°C for 3 hours.

—2.2°C on 5th, and stayed below O°C for 3 hours, and below — 1°C for 2 hours.

—1.1°C on 8th, and stayed below O°C for 2 hours.

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METERS ABOVE THE GROUND

GIZA—MARCH 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed meters per second		
	Max.	Min.	Mean * of the day	Day time mean	Night time mean	>90%	>80%	Relative %	Vapour pressure (mms.)	Mean of the day	Day time mean	Night time mean
1	26.9	13.6	18.1	23	16	0	0	26	6.6	2.3	3.6	1.3
2	25.4	8.8	15.3	19	15	6	11	43	9.4	1.1	1.9	0.6
3	18.8	10.3	12.8	16	15	0	2	30	4.4	2.1	4.0	0.8
4	18.6	5.3	11.6	14	9	0	0	35	5.2	1.4	2.8	0.3
5	19.3	4.2	10.8	15	9	5	8	34	5.1	2.0	3.3	1.0
6	18.0	6.8	10.8	14	11	0	4	66	8.2	3.0	4.5	1.9
7	21.0	7.2	12.5	16	10	0	6	38	6.4	1.6	2.7	0.8
8	22.9	5.7	13.7	17	9	4	6	30	5.7	0.9	1.7	0.3
9	24.7	6.2	14.4	19	11	0	4	30	5.9	0.7	1.1	0.4
10	25.0	7.1	16.4	20	14	2	6	23	5.2	1.7	2.9	0.8
11	22.1	11.3	15.3	17	15	2	9	38	6.8	1.8	2.7	1.2
12	19.8	8.2	13.7	16	12	7	8	52	8.7	1.9	3.0	1·2
13	18.6	8.9	12.2	14	12	3	14	44	6.4	2.0	3.9	0.7
14	18.7	7.9	12.3	14	10	1	10	42	6.2	1.9	3.3	0.9
15	20.0	5.6	12.8	16	10	2	9	42	7.1	1.7	3.6	0.4
16	21.5	5.0	13.3	16	10	8	9	49	8.4	1.0	1.7	0.4
17	24.4	6.0	15.4	19	12	5	7	37	7.6	0.9	1.6	0.5
18	28.3	6.9	16.8	21	14	4	8	21	5.7	1.9	3.2	0.9
19	33.5	10.4	19.6	24	16	2	7	21	7.7	1.5	1.0	1.9
20	28.3	14.4	21.9	23	19	0	2	31	8.3	0.8	1.5	0.2
21	27.3	15.9	21.1	23	21	0	5	45	11.0	1.4	2.3	0.9
22	30.2	10.7	19.3	24	17	8	8	24	7.4	2.1	3.2	1.4
23	25.1	14.1	18.9	21	18	0	2	35	8.3	2.3	3.6	1.3
24	25.1	14.1	17.9	21	16	7	11	50	10.5	1.7	2.8	0.9
25	24.2	11.1	17.0	20	15	8	10	52	11.1	1.2	1·8	0.7
26	27.3	12.6	19.2	22	16	8	10	45	11.4	1.3	1.7	0.9
27	31.1	11.8	21.5	25	17	5	8	22	6.8	1.2	1.5	1.0
28	31.2	12.2	20.6	24	18	3	8	28	9.0	1.9	2.7	1.3
29	23.4	14.4	17.5	20	20	0	0	41	8.4	5.0	6.8	3.7
30	21.8	11.2	15.8	18	14	0	5	36	6.8	3.1	4.2	2.3
31	22.8	8.3	15.0	18	12	3	7	44	8.1	1.3	2.1	0.7
Mean	24.0	9.6	15.2	19	14	—	—	64	8.2	1.8	2.8	1.0
Highest	33.5	—	—	—	—	—	—	—	11.4	—	—	—
Date	19	—	—	—	—	—	—	—	26	—	—	—
Lowest...	—	4.2	—	—	—	—	—	21	4.4	—	—	—
Date	—	5	—	—	—	—	—	18.19	3	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+\text{Min}}{4}$

Humidity at 2 metres above ground :

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 64%

Lowest relative humidity ... ... 18% on ... ... 19th.

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 8.2 mms.

Highest value of vapour pressure ... ... 13.3 mms. on ... ... 27th.

Lowest value of vapour pressure ... ... 4.4 mms. on ... ... 3rd. & 5th.

TABLE C 2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES.

GIZA—MARCH 1957.

DATE	Piche evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 meters height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	12	0	577	10.5	24	24	24	16	9	5	0	0	0
2	5	tr.	374	5.2	24	24	22	14	5	0	0	0	0
3	10	0	535	8.5	24	24	22	8	0	0	0	0	0
4	8	0	600	9.8	24	24	16	7	0	0	0	0	0
5	10	0	613	9.9	24	23	16	8	0	0	0	0	0
6	7	tr.	510	8.7	24	24	14	6	0	0	0	0	0
7	6	0	517	8.5	24	24	15	9	0	0	0	0	0
8	8	0	604	10.6	24	24	16	12	5	0	0	0	0
9	9	0	460	6.1	24	24	17	14	7	0	0	0	0
10	13	0.2	552	8.3	24	24	19	16	9	0	0	0	0
11	7	0.7	455	6.2	24	24	24	12	2	0	0	0	0
12	6	2.8	450	7.6	24	24	20	9	0	0	0	0	0
13	6	0.4	529	7.5	24	24	19	4	0	0	0	0	0
14	6	tr,	425	5.8	24	24	15	6	0	0	0	0	0
15	8	0	569	9.7	24	24	16	10	0	0	0	0	0
16	6	0	573	10.3	24	24	16	11	2	0	0	0	0
17	9	0	625	10.4	24	24	19	15	8	0	0	0	0
18	17	0	574	10.2	24	24	18	15	10	6	0	0	0
19	8	0	545	8.3	24	24	24	17	11	7	4	0	0
20	12	tr.	191	0.0	24	24	24	23	16	7	0	0	0
21	9	0	512	7.5	24	24	24	24	14	6	0	0	0
22	15	0	630	10.7	24	24	24	17	11	8	0	0	0
23	10	tr.	509	7.8	24	24	24	24	9	0	0	0	0
24	7	0	590	9.5	24	24	24	21	8	0	0	0	0
25	6	0	630	8.7	24	24	24	16	9	0	0	0	0
26	8	0	640	10.7	24	24	24	16	13	4	0	0	0
27	12	0	666	10.9	24	24	24	18	14	8	3	0	0
28	16	0	613	9.6	24	24	24	21	13	7	2	0	0
29	15	0	578	7.7	24	24	24	20	8	0	0	0	0
30	10	0	656	10.4	24	24	24	12	4	0	0	0	0
31	8	0	678	10.3	24	24	19	15	6	0	0	0	0
TOTAL	289	4.1	16980	266.9	744	743	635	436	193	58	9	0	0
Mean	9.3	0.1	547.7	8.6	24.0	24.0	20.5	14.1	6.2	1.9	0.3	0	0

Percentage of total hours of sunshine duration occurred with respect to the total hours possible... 72%
Maximum amount of rainfall in one day (24 hours) ... . 2.8 mms. on 12th

TABLE C 3.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS AND MINIMUM AIR TEMPERATURE AT 5 cms. ABOVE GROUND

GIZA—MARCH 1957

G. O, Govt. Printing Offices 9924-1957-100 ex.

Extreme Soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry Soil	56.0	4.5	49.3	6.7	46.0	7.3	35.5	12.0	29.0	13.5	24.5	16.5	23.0	19.0	21.5	19.5	21.0	21.0	22.5	22.0
Wet Soil	33.0	5.5	33.2	6.2	33.1	7.0	26.5	8.0	23.5	10.5	21.0	15.5	19.0	15.0	18.0	16.5	18.0	17.5	—	—
Grass	35.5	7.5	—	—	—	—	22.5	10.5	21.0	11.5	20.0	14.0	19.0	16.0	18.5	16.5	—	—	—	—

Minimum air temperature (°C) at 5 cms. above ground:

Lowest minimum temperature over dry soil ... ... —0.8 °C on 5th.
" " " " wet soil ... ... +0.6 °C on 5th.
" " " " grass ... ... —2.2 °C on 5th.

MONTHLY WEATHER REPORT

VOLUME 48 NUMBER 4

APRIL 1957

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CAIRO—EGYPT

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CONTENTS

Note : Refer to volume 43 number 1 for the list of stations appearing in the report and for explanatory notes on the tables.

GENERAL SUMMARY OF WEATHER CONDITIONS

EGYPT—APRIL 1957

Generally changeable with several Khamsin disturbances.
A severe Khamsin wave round mid of the month.

The main features were :

(*a*) Atmospheric pressure was generally below normal most of the month.

(*b*) New maximum temperature records.

(*c*) Monthly rainfall was slightly above normal northern coast of the Delta and Canal Zone ; slightly below normal inland parts of the Delta.

(*d*) Occasional rising dust and dust-storms over Lower Egypt and Middle Egypt on the 6th.

General description of weather :

For the month as a whole, the weather was changeable and mild in general. The first half of the month was characterized by three consecutive heat waves, while the second half was mild in Lower Egypt, rather cold in Upper Egypt.

The barometric pressure was below normal. Maximum and minimun temperatures oscillated slightly round their normals. Rainfall exceeded its normal over the Mediterranean district and was slightly below normal over Lower and Upper Egypt.

The mean daily relative humidity was 67·2 % at Alexandria (Kom el Nadura), 56·2 % at Giza and 40·8 % at Helwan.

Pressure and Wind.

During the first three days the barometric pressure was generally above normal all over Egypt and the prevailing outstanding features of the pressure distribution were as follows :

(*a*) A small anticyclone over Western Desert.

(*b*) An intense high north of the Black Sea extending westwards towards the British Isles.

(*c*) A shallow depression over West and Central Mediterranean.

Between 4th and 15th, four consecutive desert depressions developed over Tunisia and proceeded SE wards towards the Gulf of Serte ; then continued their course coastally eastwards traversing Lower Egypt. Accordingly the barometric pressure over Egypt oscillated four consecutive times. The corresponding 4 minima were round (6th, 9th, 12th and 15th) respectively.

Between (16th and 22nd), high pressure north of the Black Sea occupied the whole Mediterranean, while the S shaped isobars round the Iraq low persisted over east Mediterranean. Atmospheric conditions were stable in general and the barometric pressure in particular was slightly above normal.

The fifth travelling coastal depression appeared over Tripolitania on the 23rd and traversed Lower Egypt on the 25th causing a fifth oscillation in the pressure field.

From the 26th till the end of the month, the pressure over Egypt was more or less round normal while the pressure distribution during this period was of the stable summer type.

Light to moderate NWly winds prevailed, more than half of the month, Lower and Middle Egypt, Western Desert and Canal Zone. Over these districts, winds veered to NE/E, far in advance of the travelling depressions, while moderate to fresh SE/S winds blew in advance of the travelling depressions. Fresh SW/W winds accompanied their transits.

Light to moderate Nly winds prevailed over Upper Egypt and Red Sea generally.

Gales were reported at Sidi Barrani on (15th), Mersa Matruh on (5th, 24th), Alexandria on (6th), Port Said on (6th), Abu Sueir on (6th, 25th) and Siwa on (5th, 24th).

Temperature.

Maximum temperature exceeded its normal 4 consecutive times during four variant Khamsin periods, three in the first half of the month, and the fourth in the second half. The third Khamsin period was characterized by abnormal high maximum temperatures. On the 15th, Mersa Matruh reported a maximum temperature of 40 °C *i.e.* (21 °C above normal). On the 14th, Alexandria reported 42 °C i.e. (21 °C above normal) ; which is a record since the year 1942.

Maximum temperature oscillations were associated by minor similar oscillations in the minimum temperature.

Precipitation.

During this month two light rainy periods were observed along the northern coast on the (6th), and from (15th to 24th) respectively. On the (6th) rainfall extended southerly to Beni Suef, while between (15th and 24th) it did not extend beyond Tanta.

Cairo on 23/3/1958

The monthly rainfall slightly exceeded its normal over the Delta coastal area and over the Canal Zone, while it was slightly below normal inland parts of the Delta.

Miscellaneous weather phenomena :

(*a*) Thunderstorms were reported at Abu-Sueir on the (17th and 18th).

(*b*) Fog developed over Mersa Matruh on the 30th, Abu-Sueir on (7th) and Cairo on (12th).

(*c*) Sandstorms were experienced at Sallum on the (5th), Sidi Barrani on (15th), Alexandria on the (6th), Port Said on (16th), Abu-Sueir on (5th, 6th, 24th, 25th), Mostafa Helmi on (5th, 6th, 25th), both Minya and Asyout on the (6th), Aswan on (13th, 26th), and Hurghada on (6th, 18th).

M. F. TAHA

Director General.

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA

APRIL 1957

District	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (° C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	12.6	—	13.1	−1 7	12.5	−1.9	12.4	−2.2	16.4	—	17.6	−0.1	22.6	−1.2	18.6	+0.7	73	—	68	+ 5	53	0	68	+ 1
	Sidi Barrani	12.2	—	12.8	−1.4	12.6	−1.5	12.1	−1.7	15.0	—	16.9	−0.5	21.3	+0.8	17.1	−0.2	72	—	65	+ 6	52	+ 1	66	+ 1
	Mersa Matruh (A)	12.7	−2.7	13.2	−2.0	13.0	−1.9	12.9	−2.2	13.9	—	17.5	−0.1	22.0	+1.5	17.1	−0·4	77	—	65	— 3	46	−16	66	— 8
	Dabaa	13.2	—	12.6	—	12.3	—	12.6	—	15.5	—	17.2	−0.3	21.2	−0.1	17.3	+0.3	—	—	66	+ 1	50	+ 1	67	— 4
	Alexandria (A)	12.5	−1.7	13.0	−1.7	12.8	−1.5	13.0	−1.4	15.7	+0.6	18.2	+0.1	23.5	+1.4	17.6	+0.4	74	— 8	66	— 2	46	— 6	70	— 4
	Kom el Nadura	13.8	—	13.5	−0.8	13.2	−0.6	13.4	−0.6	17.3	—	17.6	−0.6	21.5	−0.2	18.2	+0.3	70	—	67	— 2	52	— 7	66	— 6
	Dekheila (A)	12.5	—	12.6	—	13.0	—	12.3	—	15.5	—	16.7	—	21.3	—	17.3	—	75	—	69	—	54	—	73	—
	Damietta	13.1	—	13.5	−1.1	12.7	−1.6	13.2	−1.2	16.5	—	18.3	−0.9	22.0	+1.2	18.1	+0.8	81	—	72	+ 2	54	— 8	73	— 7
	Port Said (A)	12.6	−1.2	13.1	−1.4	12.4	−1.4	12.9	−1.1	17.5	+0.2	19.3	+0.7	21.3	+0.3	18.5	0.0	72	— 4	63	— 7	65	+ 2	71	— 3
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	13.6	—	13.4	−1.6	12.9	−1.7	13.3	−1.7	14.8	—	19.9	+1.3	24.9	+0.6	17.4	+0.6	75	—	57	−10	38	— 3	69	— 2
	Mansoura	13.1	—	13.5	−1.1	12.2	−1.7	13.0	−1.7	—	—	18.3	- 0.2	26.2	+0.8	18.5	+1.0	74	—	64	— 4	34	— 2	61	— 9
	Tanta	13.4	—	14.3	+0.1	13.0	+0.1	13.3	−2.2	14.0	—	19.1	+1.0	26.0	−0.6	17.3	−0.6	80	—	51	−15	33	— 3	67	— 1
	Shebin el Kom	12.8	—	13.8	−1.4	12.4	−1.4	13.2	−1.2	15.2	—	18.4	+0.7	25.7	−0.5	19.0	+0.2	71	—	58	— 5	25	— 3	54	— 1
	Zagazig	12.6	—	13.0	−2.2	11.7	−1.9	12.5	−2.1	15.7	—	17.5	−1.2	26.2	−0.7	19.5	+1.1	78	—	72	+ 2	46	+ 9	69	+ 2
	Zaher (A)	13.7	—	14.2	—	12.4	—	13.3	—	15.7	—	19.4	—	26.6	—	20.0	—	68	—	55	—	29	—	52	—
	Wadi el Natrun	13.6	—	13.8	- 0.6	12.1	−0.2	13.6	0.0	16.0	—	19.7	+1.6	27.3	+0.1	19.4	−1.3	73	—	55	— 9	25	— 4	49	— 3
	Abu-Sueir (A)	13.2	—	13.7	—	12.1	—	13.1	—	15.3	—	18.7	—	27.0	—	20.3	—	69	—	57	—	24	—	48	—
Cairo Area	Cairo (A)	12.7	−1.2	13.3	−0.8	11.6	−1.4	12.6	−1.3	16.7	+0.7	19.6	+1.5	26.6	−0.2	21.1	−0.1	61	−10	52	−12	26	— 4	44	— 6
	Almaza (A)	12.4	−1.6	13.2	- 1.8	11.7	−1.8	12.5	−1.6	17.1	+1.0	19.5	+1.3	27.2	+0.7	21.5	0.0	56	−10	52	— 8	26	— 2	42	— 2
	Mostafa Helmi (A)	12.2	—	12.6	—	10.9	—	11.6	—	15.3	—	18.2	—	26.2	—	20.0	—	65	—	51	—	23	—	41	—
	Giza	13.9	—	13.9	−0.4	12.6	0.0	12.8	−0.7	14.6	—	18.2	+0.2	26.8	+1.0	20.3	−0.2	82	—	59	- 8	23	— 6	46	— 5
	Helwan	—	—	13.6	−1.1	11.8	−1.0	12.3	−1.3	—	—	18.6	+0.2	26.2	−1.0	21.9	−0.2	—	—	56	+ 2	26	+ 5	37	+ 2
Upper Egypt	Fayoum	13.0	—	14.1	−1.0	12.0	−0.8	11.7	−1.7	16.5	—	20.2	+1.4	27.9	−0.1	21.5	+0.3	—	—	52	— 4	26	+ 2	45	0
	Beni Suef	13.5	—	14.0	−0·4	12.3	−0.1	12.4	−0.3	—	—	19.8	−0.2	29.1	−0.3	21.2	−0.5	49	—	47	— 5	21	— 2	42	0
	Minya (A)	11.6	−1.8	12.9	−1.6	11.1	−1.5	11.0	−1.7	14.3	−0.4	18.9	+0.6	29.6	+0.2	20.7	0.0	56	— 7	50	— 6	17	— 5	39	— 5
	Asyoût (A)	12.3	—	13.7	−0.5	11.6	−0.1	11.6	−0.4	18.7	—	19.9	−0.2	29.3	−0.7	24.0	+0.3	27	—	31	−15	11	— 9	22	−11
	Nag Hammadi	11.5	—	13.6	−0.6	10.9	−0.2	11.7	−0.2	18.4	—	21.7	+0.7	30.6	−0.3	22.7	−0.2	57	—	41	— 3	20	+ 1	39	+ 1
	Qena	11.6	—	13.3	+0.2	11.0	+0.8	11.1	+0.4	18.5	—	23.8	+0.8	31.6	−2.0	24.4	−1.3	46	—	30	— 6	17	0	30	+ 2
	Luxor (A)	11.0	+0.2	12.8	+0.3	10.0	+0.1	10.2	−0.1	18.7	−0.7	22.4	−1.4	31.8	−1.1	25.5	−0.9	37	+ 4	36	+ 5	19	+ 3	26	+ 2
	Aswan	10.6	—	12.6	0.0	9.5	−0.5	9.7	−0.5	21.3	—	22.9	−0.8	32.8	−1.6	28.2	−0.8	26	—	27	— 2	11	— 4	16	— 2
Western Desert	Siwa	12.8	−1.2	13.5	−1.4	12.4	−1.2	11.7	−1.7	16.3	−0.1	16.6	−0.6	28.0	−0.6	23.4	−0.4	45	— 3	50	— 5	18	— 4	25	— 5
	Bahariya	13.6	—	13.9	−1.7	12.1	−1.7	12.2	−2.2	—	—	19.0	+0.3	28.4	−0.4	22.7	+0.6	—	—	51	— 3	31	+ 4	39	+ 1
	Farafra	13.2	—	14.9	—	12.7	—	12.9	—	15.8	—	17.8	—	29.3	—	23.0	—	26	—	28	—	13	—	17	—
	Dakhla	13.4	—	14.6	−0.1	12.7	+0.3	12.5	−0.5	18.5	—	19.4	−1.1	30.1	−0.7	25.6	−0.3	23	—	27	— 7	16	— 1	17	— 3
	Kharga	10.8	—	11.9	−2.7	10.0	−2.7	10.1	−1.9	17.3	—	21.8	−0.2	31.6	−0.4	23.9	−1.4	33	—	34	— 8	14	−12	25	— 9
Red Sea	Suez	13.8	—	14.1	−0.9	12.3	−1.3	12.6	−2.5	18.8	—	19.7	+0.6	25.7	−0.9	22.0	+0.7	65	—	63	— 1	39	+ 3	52	— 2
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	10.6	—	12.3	0.0	10.8	+0.1	10.9	+0.4	17.4	—	22.7	+0.8	26.3	+1.5	21.9	−0.6	51	—	44	— 9	40	−18	51	— 4
	Quseir	—	—	12.4	+0.1	11.4	−0.2	11.3	+0.1	—	—	24.5	+0.2	25.7	−0.1	22.9	−0.6	—	—	34	−13	46	−13	49	— 9

TABLE A. 2—SURFACE CLIMATOLOGICAL DATA
APRIL 1957

District	Station	Air Temperature (°C)												Rainfall in mms.						Mean Evaporation Piche (mms)
		Mean Max. (A)	Dev. from Normal	Mean Min. (B)	Dev. from Normal	Daily Mean A+B / 2	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No of days with amount of rain			
							Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				≥ 0·1	≥ 1.0	≥ 10	
Mediterranean	Sallum	23.9	+0.1	14.2	+1.5	19.0	41.7	15	19.4	22	11.6	28	19.8	12	1.9	1.9	5	0	1	0	11.2
	Sidi Barrani ...	21.5	—0.5	12.5	—0.1	17.0	40.0	14·15	17.7	18·19	7.7	3	18.0	14	3.5	1.3	18	2	2	0	7.0
	Mersa Matruh (A)	23.8	+1.3	11.4	—1.6	17.6	39.6	15	18.7	1·2	6.8	4	18.4	14	5.7	1.9	5,16	4	2	0	8.8
	Dabaa	22.9	—0.2	11.8	—0.3	17.4	41.6	14	18.6	2	8.0	8	16.2	10	0.0	0.0	—	0	0	0	5.6
	Alexandria (A)	24.3	+1·1	13.8	+0.5	19.0	41.6	14	19.0	3	10.7	23	16.8	25	8.4	5.0	20	1	3	0	5.7
	Kom el Nadura	23.2	—0.4	15.1	0.0	19.2	40.4	14	19.3	3·21	10.0	6	19.7	15	4.9	2.4	19	3	2	0	7.1
	Dekheila (A)	22.5	—	14.0	—	18.2	39.8	14	18.0	6	9.7	1	18.1	15	8.4	2.5	20	1	5	0	9.3
	Damietta	22.9	—0.8	12.8	—0.9	17.8	36.1	15	17.7	6	8.0	1	19.6	15	11.1	6.2	6	0	3	0	4.1
	Port Said (A)	24.2	+1.9	15.6	—0.5	19.9	37.3	15	20.0	6	11.8	22	20.4	15	6.9	5.9	6	2	1	0	5.8
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour ...	26·2	—0.2	12.3	+0.2	19.2	40.8	15	20.1	3	9.1	2	18.6	16	1.3	0.7	19	4	0	0	6.3
	Mansoura	27.4	+0.3	12.4	+0.3	19.9	40.5	14·15	20.2	6	8.5	2	18.0	25	5.0	5.0	19	0	1	0	4.4
	Tanta	27.4	—0.4	11.2	+0.6	19.3	39.3	15	21.2	6	7.0	3	18.8	15	0.3	0.3	6	1	0	0	5.0
	Shebin el Kom ...	26.4	—1.4	13.2	+1.3	19.8	39.4	15	21.4	2·19	9.8	3	17.8	15	0.0	0.0	—	0	0	0	6.2
	Zagazig	27.5	—0.3	12.2	+0.8	19.8	40.5	15	21.5	20	8.5	4·22	19.0	15	0.0	0.0	—	0	0	0	5.2
	Zaher (A)	27.7	—	12.0	—	19.8	41.2	15	20.8	1	8.0	1	20.4	15	2.2	2.2	6	0	1	0	10.6
	Wadi el Natrun	28.2	—0.6	13.3	+0.9	20.8	40.0	15	21.8	19	9.8	2	19.5	15	tr.	tr.	18	0	0	0	9.8
	Abu Sueir (A)	28.0	—	13.6	—	20.8	40.9	14	21.4	2	9.0	4	22.6	16	tr.	tr.	*	0	0	0	12.6
Cairo Area	Cairo (A)	28.1	+0.2	14.3	+0.7	21.2	41.3	15	21.3	2	10.5	1·4	25.5	15	0.2	0.2	6	1	0	0	12.7
	Almaza (A)	28.7	+0.8	14.5	+1.0	21.6	41.4	15	21.8	6	10.6	1	25.2	15	0.3	0.3	6	1	0	0	9.0
	Mostafa Helmi(A)	27.4	—	13.6	—	20.5	39.7	15	20.9	2	9.5	22	23.9	16	0.1	0.1	6	1	0	0	16.3
	Giza	28.3	—0.2	12.1	—1.2	20.2	40.3	15	21.9	3	7.7	4	18.9	16	tr.	tr.	6.21	0	0	0	—
	Helwan	27.5	—0.9	14.8	+0.7	21.2	39.7	14·15	20.6	21	10.1	1	27.5	15	tr.	tr.	6·21	0	0	0	11.5
Upper Egypt	Fayoum	29.7	+0.3	12.9	0.0	21.3	41.6	14	23.3	20	9.6	2	21.0	16	tr.	tr.	6	0	0	0	6.3
	Beni Suef ...	29.4	—0.3	12.0	+0.2	20.7	41.4	14	22.8	6	7.6	2	22.3	25	tr.	tr.	6	0	0	0	6.1
	Minya (A)	30.2	0.0	11 3	—0.4	20.8	40.7	14	24.0	19	6.7	5	20.0	25	0.0	0.0	—	0	0	0	10.7
	Asyoût (A)	30.7	—0·8	15.2	+0.7	23.0	41.3	16	24.2	19	10.7	2	25.6	25	0.0	0.0	—	0	0	0	16.2
	Nag Hammadi ...	32.1	+0.1	13.4	+0.3	22.8	40.4	25	26.3	1	8.8	3	21.0	26	tr.	tr.	26	0	0	0	7.7
	Qena	32.8	—2.2	14.7	—1.4	23.8	41.3	15	26.6	1	8.6	1	23.2	26	0.0	0.0	—	0	0	0	13.5
	Luxor (A)	33.0	—1.3	14.9	—0.6	24.0	42.1	25	27.1	1·19	9.2	1	23.2	26	0.0	0.0	—	0	0	0	13.1
	Aswan	34.2	—1.2	17.2	—1.9	25.7	44.3	25	27.6	19	10.8	1	25.8	26	0.0	0.0	—	0	0	0	18.6
Western Desert	Siwa	29.3	—0.7	12.7	—0.4	21.0	42.1	15	22.5	19	7.7	1	24.0	24	tr.	tr,	5·23	0	0	0	14.4
	Bahariya	29.4	—0.8	12.3	—0.1	20.9	40.7	15	23.0	19	6.8	1	25.2	25	0.0	0.0	—	0	0	0	10.6
	Farafra	30.2	—0.3	12.0	+0.4	21.1	41.0	15	23.4	19	5.2	1	25.0	25	0.0	0.0	—	0	0	0	17.1
	Dakhla	31.5	—0.6	13.0	—1.7	22.8	41.5	13	24.1	19	8.2	1	21.5	26	0.0	0.0	—	0	0	0	14.8
	Kharga	32.5	—0.3	13.8	—1.9	23.2	42.5	25	26.0	20	8.4	1	24.0	26	0.0	0.0	—	0	0	0	10.6
Red Sea	Suez	27.6	—0.7	12.2	—2.5	19.9	37.0	16	22.1	23	8.3	21	19.5	16	4.0	4.0	21	0	1	0	8.8
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada ...	27.3	+1.2	14.5	—1.6	20.9	33.8	15	22.9	4	10.5	1	20.0	17	0.0	0.0	—	0	0	0	18.1
	Quseir	27.3	0.0	18.3	—1.1	22.8	31.8	15	23.3	4	14.0	3	22.0	15.17	0.0	0.0	—	0	0	0	18.3

* More than three days.

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

APRIL 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandrising or Dust rising	Duststorms or Sandstorms	Gales
Sallum	1	0	0	0	0	0	1	0
Sidi Barrani	4	0	0	0	0	0	1	1
Mersa Matruh (A)	6	0	0	0	1	0	0	2
Alexandria (A)	4	0	0	0	0	1	1	1
Port Said (A)	3	0	0	0	0	0	1	1
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	0	0	0	2	1	3	4	2
Cairo (A)	2	0	0	0	1	0	0	0
Almaza (A)	1	0	0	0	0	2	0	0
Mostafa Helmi (A)	1	0	0	0	0	1	3	0
Minya (A)	0	0	0	0	0	0	1	0
Asyoût (A)	0	0	0	0	0	0	1	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan	0	0	0	0	0	0	2	0
Siwa	0	0	0	0	0	0	0	2
Hurghada	0	0	0	0	0	0	2	0

TABLE A—4 NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION.

APRIL 1957

STATION	Calm	Variable	Unrecorded	Wind Speed in Knots	Number of occurrences of wind blowing from ranges of direction indicated in degrees from the north												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	
Sidi Barrani	3	1	0	1—10	8	19	8	3	7	13	4	7	15	8	8	16	116
				11—27	73	23	27	56	31	34	36	10	19	19	72	168	568
				28—47	3	—	—	17	1	—	8	2	—	—	1	—	32
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**84**	**42**	**35**	**76**	**39**	**47**	**48**	**19**	**34**	**27**	**81**	**184**	**716**
Mersa Matruh (A) ...	10	7	0	1—10	19	17	14	26	18	7	11	12	75	19	29	64	311
				11—27	7	5	28	50	19	15	21	18	15	15	92	86	376
				28—47	—	—	5	—	—	—	4	—	2	—	4	1	16
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**26**	**22**	**47**	**76**	**37**	**22**	**36**	**30**	**92**	**34**	**130**	**151**	**703**
Alexandria (A) ...	0	2	12	1—10	54	25	28	26	29	37	10	4	9	4	59	132	417
				11—27	13	9	28	24	21	7	11	2	7	19	33	113	287
				28—47	—	—	—	—	—	—	—	—	2	—	—	—	2
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**67**	**34**	**56**	**50**	**50**	**44**	**21**	**6**	**18**	**23**	**92**	**245**	**706**
Port-Said (A) ...	1	11	6	1—10	58	35	30	20	23	5	4	5	15	34	23	42	294
				11—27	47	11	43	69	11	10	4	11	24	44	38	94	406
				28—47	—	—	—	—	—	—	—	—	—	—	2	—	2
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**105**	**46**	**73**	**89**	**34**	**15**	**8**	**16**	**39**	**78**	**63**	**136**	**702**
Cairo (A) ...	6	19	117	1—10	55	40	34	14	25	11	8	20	23	13	37	99	379
				11—27	4	4	6	35	16	21	20	7	8	18	30	30	199
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**59**	**44**	**40**	**49**	**41**	**32**	**28**	**27**	**31**	**31**	**67**	**129**	**578**
Almaza (A) ...	11	3	4	1—10	94	96	25	23	9	4	10	8	22	66	65	60	482
				11—27	14	27	24	9	15	27	24	15	16	31	8	10	220
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**108**	**123**	**49**	**32**	**24**	**31**	**34**	**23**	**38**	**97**	**73**	**70**	**702**
Minya (A) ...	40	206	21	1—10	162	51	3	—	1	30	32	13	8	6	11	58	375
				11—27	16	7	—	—	—	—	14	3	—	6	11	21	78
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**178**	**58**	**3**	**—**	**1**	**30**	**46**	**16**	**8**	**12**	**22**	**79**	**453**
Luxor (A) ...	24	42	0	1—10	33	29	25	17	22	41	45	28	23	34	165	163	625
				11—27	1	6	1	3	1	—	—	—	—	5	9	3	29
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**34**	**35**	**26**	**20**	**23**	**41**	**45**	**28**	**23**	**39**	**174**	**166**	**654**
Siwa	48	23	0	1—10	19	19	37	54	52	32	14	9	16	19	45	48	364
				11—27	13	10	7	24	40	13	18	16	10	3	35	87	276
				28—47	—	—	—	—	—	—	—	2	1	5	1	—	9
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**32**	**29**	**44**	**78**	**92**	**45**	**32**	**27**	**27**	**27**	**81**	**135**	**649**
Hurghada	12	58	16	1—10	14	26	21	17	35	28	6	4	1	22	60	13	247
				11—27	72	5	1	2	17	6	—	1	—	23	101	122	350
				28—47	9	—	—	—	—	—	—	—	—	—	1	27	37
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**95**	**31**	**22**	**19**	**52**	**34**	**6**	**5**	**1**	**45**	**162**	**162**	**634**

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A).—APRIL 1957

Pressure Surface (millibar)	HEIGHTS OF PRESSURE SURFACES (gpm.)				TEMPERATURE (°C)				Dew point (°C)	
	obs. at 1130 U.T.		Highest	Lowest	obs. at 1130 U.T.		Highest	Lowest	obs. at 1130 U.T.	
	N.	Mean			N.	Mean			N.	Mean
Surface	6	1005mb.	1010mb.	1000mb.	6	28.6	36.1	20.9	6	4.0
1000	6	118	156	70	6	28.1	35.7	20.4	5	5.0
850	6	1522	1549	1483	6	16.1	22.6	8.0	2	— 6.0
700	5	3159	3230	3082	6	5.7	9.9	— 2.5	2	—16.9
600	5	4393	4482	4292	5	— 3.4	0.7	— 8.8	—	—
500	5	5801	5907	5676	5	—13.1	— 7.8	—19.5	—	—
400	5	7451	7570	7296	5	—27.6	—21.6	—31.6	—	—
300	—	—	—	—	—	—	—	—	—	—
200	—	—	—	—	—	—	—	—	—	—
150	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N=Number of observations of specified pressure surfaces.

MERSA MATRUH (A).—APRIL 1957

Pressure Surface (millibar)	HEIGHTS OF PRESSURE SURFACES (gpm.)				TEMPERATURE (°C)				Dew Point (°C)	
	obs. at 1130 U.T.		Highest	Lowest	obs. at 1130 U.T.		Highest	Lowest	obs. at 1130 U.T.	
	N.	Mean			N.	Mean			N.	Mean
Surface	26	1011mb.	1017mb.	1005mb.	26	21.1	37.4	17.0	26	14.4
1000	26	127	175	72	25	20.3	37.1	15.6	22	11.2
850	26	1505	1549	1445	26	11.5	26.4	3.2	16	1.7
700	25	3102	3200	3025	24	2.5	11.4	— 4.6	8	— 7.9
600	25	4327	4460	4225	23	— 5.8	— 0.7	—11.2	8	—13.6
500	24	5731	5886	5587	23	—16.3	—11.9	—22.1	4	—22.3
400	23	7368	7546	7208	22	—27.9	—22.9	—33.0	5	—35.8
300	21	9370	9574	9172	21	—43.2	—39.5	—50.0	—	—
200	20	12024	12238	11761	19	—54.8	—47.7	—59.0	—	—
150	18	13856	14064	13629	18	—57.1	—64.6	—51.4	—	—
100	15	16405	16554	16232	15	—62.0	—55.3	—68.9	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N.=Number of observations of specified pressure surfaces.

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

ASWAN — APRIL 1957

Pressure Surface (millibar)	Height of Pressure Surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1130 U.T.		Highest	Lowest	obs. at 1130 U.T.		Highest	Lowest	obs. at 1130 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	26	998mb.	1002mb.	993mb.	26	32.3	41.7	26.3	26	6.0
1000	9	140	153	135	9	28.9	33.8	26.2	8	4·5
850	26	1543	1567	1501	26	20.2	29.6	10.5	22	— 2.4
700	26	3157	3220	3100	26	9.7	12.1	— 4.0	12	— 4.0
600	25	4396	4485	4299	25	3.1	5.2	— 8.4	—	—
500	24	5815	5927	5686	24	—12.1	— 7.1	—19.3	5	—16.6
400	24	7442	7627	7329	24	—22.0	—18.2	—31.5	5	—20.0
300	19	9527	9675	9348	19	—38.4	—34.2	—47·8	2	—33.7
200	10	12227	12414	12057	10	—47·9	—43.8	—52.0	—	—
150	8	14050	14270	13924	8	—60.4	—55.0	—68.5	—	—
100	5	16543	16835	16388	5	—69.3	—63.5	—74.6	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N—Number of observations of specified pressure surfaces.

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

APRIL 1957

STATION	Time of observation U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm (N)	Pressure mb (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Dir (000-360)	Speed in knots
CAIRO (A)	1130	3700	656	—11.6	4530	549	—	2680	737	—8.6	—	—	—	—	—	—	—	—	—	9400	—	300	86
		(5)	(5)	(2)																			
MERSA MATRUH (A)	1130	3070	715	—5.9	4390	607	—8.5	1750	823	—3.3	10850	238	—55.9	12050	196	—60.1	9600	281	—51.7	11450	216	280	115
		(25)	(25)	(13)							(21)	(20)	(21)										
ASWAN	1130	3750	657	—	4950	570	—	2600	744	—	15775	115	—66.0	17450	82	—75.5	14100	148	—56.5	11600	230	270	118
		(24)	(24)								(2)	(2)	(2)										

N = Total number of observations.

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.

CAIRO (A).— 1130 U.T. — APRIL 1957.

Pressure Surfaces mb.	Wind between Specified ranges of Direction (000–360)																						Calm	Total Number of observations (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			
Surface ...	1	09	—	—	1	10	—	—	—	—	—	—	—	—	—	—	—	—	1	10	2	08	1	10	0	6	09
1000	1	09	—	—	1	10	—	—	—	—	—	—	—	—	—	—	—	—	1	10	2	08	1	10	0	6	09
850	1	09	—	—	—	—	—	—	—	—	1	04	1	20	1	11	—	—	—	—	1	12	1	06	0	6	10
700	—	—	—	—	1	10	—	—	—	—	—	—	—	—	1	09	—	—	1	07	2	19	—	—	0	5	12
600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	09	—	—	1	22	1	39	—	—	0	3	23
500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	19	—	—	2	40	—	—	0	3	33
400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	27	1	69	—	—	0	3	41
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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).—1130 U.T.– APRIL 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of observations (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			
Surface ...	1	7	1	13	1	11	4	20	—	—	—	—	2	13	1	18	—	—	—	—	5	21	11	12	0	26	15
1000	3	13	—	—	—	—	3	10	1	14	1	7	1	17	2	16	—	—	2	11	5	17	8	11	0	26	12
850	—	—	—	—	—	—	1	8	1	14	1	16	1	19	2	16	2	20	8	16	6	13	4	9	0	26	14
700	1	26	—	—	1	2	—	—	—	—	—	—	1	11	—	—	7	23	5	21	8	23	2	24	0	25	21
600	—	—	—	—	—	—	—	—	—	—	—	—	1	12	—	—	5	31	6	21	10	29	2	31	0	24	26
500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	19	4	29	6	37	11	29	1	36	0	24	36
400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	37	7	41	9	44	—	—	0	20	41
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	52	9	37	3	62	—	—	0	14	49
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	70	4	63	1	68	—	—	0	7	65
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	55	—	—	—	—	0	6	55
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	10	1	43	—	—	—	—	0	2	26
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

ASWAN 1130 U.T. — APRIL 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of Observations (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			
Surface ...	16	12	—	—	—	—	—	—	1	06	—	—	3	8	1	05	—	—	1	16	—	—	3	06	1	26	10
1000	7	9	—	—	—	—	—	—	—	—	—	—	—	—	1	05	—	—	—	—	—	—	1	06	0	9	8
850	3	9	1	13	3	10	—	—	2	10	—	—	—	—	—	—	1	09	2	16	11	12	3	16	0	26	12
700	1	17	1	04	—	—	1	08	1	14	—	—	—	—	1	08	3	31	9	20	5	16	3	17	0	25	18
600	1	11	—	—	1	08	—	—	—	—	—	—	—	—	1	11	2	15	12	28	4	31	2	21	0	23	24
500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	30	10	36	6	34	2	12	0	21	32
400	1	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	42	11	52	5	37	—	—	0	19	45
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	54	5	66	—	—	4	52	0	11	59
200	—	—	—	—	—	—	1	59	—	—	—	—	—	—	—	—	—	—	2	58	1	61	—	—	0	4	59
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGROMETEOROLOGICAL STATION AT GIZA

APRIL 1957

This month was normal, concerning its mean temperature and relative humidity, but it was practically free of rain except for traces on 2 scattered days, *i.e.* its rain was 3 mm. below normal, while its mean absolute humidity was about 0.5 mm. below normal.

Mean temperature of this month was exactly the same as that of April 1956 while its mean relative humidity was 4% more, and the total rainfall was also equal in the two months, while the mean absolute humidity of this April was 0.7 mm. more than last April.

An outstanding heat-wave of the Khamsin type manifested itself in the period from 12th to 16th of this month, reaching its climax on the 15th, giving an absolute maximum temperature of 40.3°C, about 3° higher than last April, and an absolute minimum relative humidity of 5% same as last April. Minimum absolute humidity of this month was 1.5 mm. higher than last April.

At 0.3 cms. depth in the dry soil, temperature maximum attained was 65.5 degrees *i.e.* 4.5 degrees higher than last April, while its minimum was 1 degree higher. Mean temperature at all levels was about 0.5 degree higher than last years.

This month was frost-free, same as last April, the minimum at 5 cms. above grass being 1 degree lower than last year.

Mean wind at 2 mtrs height was 2.0 mtrs./sec. against 2.8 mtrs./sec. for April 1956. Total sunshine duration was practically the same in the 2 months, as well as the total radiation.

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METERS ABOVE THE GROUND

GIZA—APRIL 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed meters per second		
	Max.	Min.	Mean of the day*	Day time mean	Night time mean	>90%	>80%	Relative %	Vapour pressure (mms)	Mean of the day	Day time mean	Night time mean
1	22.1	8.8	15.0	18	12	3	9	39	7.0	1.5	2.2	0.9
2	22.5	7.9	15.4	18	13	2	9	45	8.5	1.3	2.1	0.8
3	21.9	9.5	15.2	18	14	6	9	45	8.1	1.6	2.4	1.1
4	25.6	7.7	16.3	19	13	5	8	24	5.4	1.9	3.1	1.1
5	31.1	10.9	20.8	25	17	0	1	14	4.4	3.0	2.9	3.0
6	22.4	16.4	17.3	19	21	0	3	56	9.6	4.2	5.8	3.0
7	22.9	14.0	17.7	19	15	0	9	51	10.0	2.0	2.3	1.8
8	26.1	9.9	17.6	20	15	8	9	30	7.0	1.4	2.0	0.9
9	31.0	11.6	20.6	25	17	1	2	18	5.6	2.7	4.0	1.7
10	26.6	13.2	18.8	21	17	0	7	36	8.8	1.7	2.4	1.2
11	29.9	14.4	20.8	23	17	1	8	27	7.8	2.3	3.2	1.6
12	35.8	12.4	21.8	27	18	6	7	18	7.5	1.7	1.5	2.0
13	38.3	12.6	24.9	29	19	3	7	11	5.2	0.8	1.3	0.3
14	40.2	13.5	25.6	32	21	0	0	10	5.3	1.9	2.4	1.5
15	40.3	15.2	27.8	33	21	0	2	9	5.1	1.6	3.4	0.4
16	34.8	18.9	23.9	27	24	0	0	46	13.4	2.7	5.1	1.0
17	25.0	13.6	18.3	21	17	0	7	20	4.1	2.6	3.2	2.2
18	23.5	8.4	15.8	18	14	0	4	36	7.3	1.6	2.3	1.2
19	22.6	9.2	15.4	18	14	0	4	38	6.8	1.6	2.1	1.2
20	22.5	10.5	16.0	18	15	2	6	41	7.8	2.1	2.4	1.9
21	23.0	10.4	15.8	18	13	0	6	34	6.8	1.8	2.9	0.9
22	23.7	7.9	15.5	18	10	1	7	30	5.8	1.4	2.1	0.9
23	28.5	10.1	19.3	22	15	0	3	21	5.7	1.6	2.1	1.2
24	34.1	13.7	23.0	26	19	0	0	20	7.2	1.8	1.8	1.8
25	35.3	17.4	24.9	28	23	0	2	16	6.8	3.2	4.8	2.1
26	28.7	15.0	20.7	23	19	2	8	38	10.4	2.7	3.2	2.3
27	27.3	13.9	19.1	21	18	3	8	39	9.5	2.4	2.9	2.1
28	27.4	11.1	18.5	21	15	4	8	27	6.9	1.5	2.1	1.0
29	27.1	11.9	19.1	22	16	0	5	37	9.4	1.7	2.2	1.4
30	28.6	12.4	20.2	23	17	4	8	32	8.9	1.8	2.2	1.5
Mean	28.3	12.1	19.4	22.3	16.6	—	—	30	7.4	2.0	2.7	1.5
Highest	40.3	18.9	—	—	—	—	—	56	13.4	—	—	—
Date	15th	16th	—	—	—	—	—	6th	16th	—	—	—
Lowest...	21.9	7.7	—	—	—	—	—	9	4.1	—	—	—
Date	3rd	4th	—	—	—	—	—	15th	17 th	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+\text{Min}}{4}$

Humidity at 2 metres above ground :

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 58%

Lowest relative humidity ... ... 5% on ... ... 14th and 15th

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 8.7 mms.

Highest value of vapour pressure ... ... 13.4 mms. on 16th

Lowest value of vapour pressure ... ... 3.4 mms. on 17th

TABLE C 2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES

GIZA—APRIL 1957.

DATE	Piche Evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 meters height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	8	0	716	10.5	24	24	20	14	4	0	0	0	0
2	7	0	598	9.7	24	24	17	14	4	0	0	0	0
3	8	0	681	10.5	24	24	22	12	4	0	0	0	0
4	16	0	685	9.7	24	24	20	16	10	6	0	0	0
5	21	0	678	10.3	24	24	24	19	16	9	1	0	0
6	12	tr.	356	2.4	24	24	24	23	4	0	0	0	0
7	7	0	527	6.6	24	24	24	17	8	0	0	0	0
8	11	0	710	10.7	24	24	24	16	11	1	0	0	0
9	18	0	710	11.3	24	24	24	18	12	8	2	0	0
10	10	0	733	11.3	24	24	24	16	9	2	0	0	0
11	13	0	679	10.2	24	24	24	19	14	6	0	0	0
12	11	0	688	11.1	24	24	24	19	13	9	6	2	0
13	18	0	664	10.9	24	24	24	21	16	14	8	4	0
14	18	0	699	11.5	24	24	24	22	16	13	10	7	0
15	28	0	707	11.5	24	24	24	24	17	16	10	8	0
16	19	0	702	11.1	24	24	24	24	17	10	2	0	0
17	14	0	738	11.4	24	24	24	19	8	0	0	0	0
18	10	0	685	9.8	24	24	20	16	6	0	0	0	0
19	11	0	594	9.5	24	24	22	16	5	0	0	0	0
20	9	0	591	8.3	24	24	24	14	5	0	0	0	0
21	9	tr.	564	8.2	24	24	24	13	4	0	0	0	0
22	10	0	770	10.6	24	24	18	15	6	0	0	0	0
23	15	0	635	9.1	24	24	24	19	14	5	0	0	0
24	17	0	383	1.7	24	24	24	22	16	12	4	0	0
25	24	0	538	6.5	24	24	24	24	17	11	8	0	0
26	13	0	715	8.6	24	24	24	24	12	7	0	0	0
27	11	0	745	10·7	24	24	24	19	10	3	0	0	0
28	12	0	794	11.9	24	24	24	17	11	5	0	0	0
29	11	0	787	11.4	24	24	24	18	10	3	0	0	0
30	12	0	756	11.6	24	24	24	18	13	6	0	0	0
TOTAL ...	403	tr.	19828	288.6	720	720	691	548	312	140	51	21	0
Mean	13.4	0.0	661	9.6	24.0	24.0	23.0	18.3	10.1	4.7	1.7	0.7	0

Percentage of total hours of sunshine duration occurred with respect to the total hours possible...75%
Maximum amount of rainfall in one day (24 hours) ... ... traces on ... ... 6th and 21st

TABLE C 3.—EXTREME SOIL TEMPERATURES AT DIFFERENT DEPTHS AND MINIMUM AIR TEMPERATURE AT 5 cms. ABOVE GROUND

GIZA—APRIL 1957.

(G. O., Govt. Printing Offices 10739-1957-100 ex.)

Extreme soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry soil	65.5	7.0	54.5	9.5	51.5	9.5	40.0	16.0	33.0	19.5	28.0	21.5	25.5	22.5	24.0	21.5	22.5	21.0	22.0	22.0
Wet soil	36.5	9.5	35.0	9.0	34.0	10.0	28.5	11.5	26.0	14.5	23.0	16.5	21.0	18.0	19.5	18.0	19.0	18.0	—	—
Grass	31.5	11.0	—	—	—	—	25.5	14.0	24.0	15.5	23.0	17.5	21.0	18.5	20.0	18.5	—	—	—	—

Minimum air temperature (°C) at 5 cms. above ground:

Lowest minimum temperature over dry soil ... ... 3.1 °C on 22nd.

" " " " wet soil ... ... 4.9 °C on 2nd.

" " " " grass ... ... 0.5 °C on 4th.


الهيئة العامة لشئون المطابع الأميرية
القاهرة

MONTHLY WEATHER REPORT

VOLUME 48 NUMBER 5

MAY 1957

MINISTRY OF WAR – METEOROLOGICAL DEPARTMENT
CAIRO – EGYPT

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MINISTRY OF WAR–METEOROLOGICAL DEPARTMENT
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CONTENTS

Note: Refer to volume 48 number 1 for the list of stations appearing in the report and for explanatory notes on the tables.

GENERAL SUMMARY OF WEATHER CONDITIONS

EGYPT—MAY 1957

Changeable with occasional rain and thunder, mild in general.

The main features were :

(*a*) Occasional rising dust and duststorms.

(*b*) Mild in general with subnormal temperatures.

(*c*) Occasional rain and thunder within three consecutive periods.

(*d*) Highly humid in general most of the northern coast and Lower Egypt.

General description of weather.

For the month as a whole the weather was mild, almost humid in the northern coast, and characterized by three consecutive rainy periods, accompanied by occasional thunderstorms.

The atmospheric pressure, maximum and minimum temperatures were generally below normal. The monthly rainfall exceeded its normal over the Mediterranean, Lower Egypt and western desert districts.

The mean daily relative humidity reached 70.5% at Alexandria (Kom el Nadura), 51.0% at Giza and 38.3% at Helwan.

Pressure and wind.

The general features of the pressure distribution during the month were :

(*a*) An intense local high over the Black Sea.

(*b*) An intense anticyclone over the British Isles.

(*c*) A small local high over the Western Desert.

(*d*) A complex low pressure system occupying central Mediterranean with shallow secondaries in its southern limit trailing eastwards along the North Africa coastal area.

Four travelling coastal secondaries traversed Lower Egypt round the 2nd, 8th, 13th, and 21st. The barometric pressure over Lower and Middle Egypt oscillated accordingly four consecutive times, while over Upper Egypt it was partly affected by the northward elongation of the Sudan low, and hence it experienced more secondary oscillations.

Apart from the secondaries' transitional periods over northern Egypt, the barometric pressure over Egypt in general was slightly above normal.

Light to moderate N/NWly winds prevailed generally most of the month, though E/SEly winds blew in advance of the travelling secondaries and fresh westerly winds accompanied their transits.

Gales were reported at Sidi Barrani on the 20th, Abu Sueir on the 2nd and 21st, and Aswan on the 9th.

Temperature.

For the month as a whole, maximum and minimum temperatures were oscillatory and in accordance. Four mild spells of modified cold air were enjoyed at the rear of the four Khamsin depressions that traversed Lower and Middle Egypt this month.

Precipitation.

Occasional rain and thunderstorms were characteristic and abnormal features of this month. Three consecutive rainy periods were experienced, vis (3rd to 4th), (7th to 9th), (20th to 23rd). Rainfall was generally light, though heavy rainfall was confined to narrow localities. In most of northern parts. the monthly rainfall was above normal; while in the rest few parts it was below normol. Minya reported a fall of 8.4 mms on the 21st. which is a record since 1907.

Miscellaneous weather phenomena.

(*a*) Occasional thunderstorms over Mersa Matruh on the 22nd and 23rd, Port Said on the 23rd, Abu Sueir on the 4th, 9th and 23rd, Almaza on the 4th and 23rd, Mostafa Helmi on the 4th, Minya on the 21st, Siwa on the 20th and 21st and Hurghada on the 17th and 23rd.

(*b*) Occasional rising sand and sandstorms over Sidi Barrani on the 20th, Abu Sueir on the 21st and 23rd, Mostafa Helmi on the 21st, Minya on the 30th, Asyout on the 4th, 8th, 21st and 23rd, Aswan on the 4th and 9th.

(*c*) Early morning fog at Mersa Matruh on fhe 28th.

(*d*) Hail was reported at Abu Sueir on the 23rd.

Cairo on 5/4/1958.

M. F. Taha
Director General
Meteorological Department

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA

MAY 1957

District	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (°C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	12.3	—	12.0	— 1.1	11.6	— 1.0	11.5	— 1.3	18.2	—	20.4	— 1.1	24.4	— 0.1	20.5	— 0.1	76	—	68	+ 5	57	+ 5	70	0
	Sidi Barrani	11.0	—	11.9	— 1.5	11.7	— 1.8	11.3	— 1.9	17.2	—	19.9	— 0.8	22.8	— 0.1	19.5	— 0.3	79	—	68	+ 6	62	+ 4	76	+ 4
	Mersa Matruh (A)	11.7	+ 1.2	12.4	— 1.1	12.2	— 1.1	12.0	— 1.2	16.7	—	20.7	— 0.1	23.7	+ 1.0	19.2	— 1.0	77	—	62	— 7	53	—14	73	— 3
	Dabaa	11.4	—	11.9	—	11.7	—	11.5	—	17.5	—	20.6	— 0.6	24.0	0.0	19.4	— 0.7	—	—	64	— 3	50	— 1	74	— 2
	Alexandria (A)	11.4	— 1.8	12.4	— 0.5	11.9	— 0.7	11.7	— 0.9	17.6	— 0.5	21.4	— 0.6	25.6	+ 0.4	21.8	+ 1.5	76	— 9	65	— 3	50	— 4	69	— 8
	Kom el Nadura	12.2	—	12.8	— 1.0	12.3	— 1.2	12.3	— 1.2	18.7	—	20.5	— 1.1	22.7	— 1.8	20.4	— 0.4	75	—	70	0	65	+ 2	71	— 5
	Dekheila (A)	12.0	—	12.5	—	12.0	—	11.7	—	17.1	—	20.0	—	22.7	—	19.5	—	82	—	73	—	66	—	78	—
	Damietta	12.0	—	12.6	— 0.4	12.3	— 0.3	11.9	— 0.7	—	—	20.8	— 2.3	24.0	— 0.7	20.7	— 0.3	81	—	74	+ 6	57	— 3	73	— 7
	Port Said (A)	11.5	— 0.5	12.1	— 0.7	11.7	— 0.7	11.7	— 0.7	19.9	— 0.6	22.1	— 0.3	23.6	— 0.6	20.8	— 0.8	76	— 1	67	— 3	65	0	76	0
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	12.8	—	12.3	— 1.1	12.0	— 0.6	12.0	— 1.0	18.4	—	21.6	— 1.4	28.0	— 0.5	20.7	— 0.3	78	—	66	+ 3	40	0	67	— 3
	Mansoura	11.8	—	12.7	— 0.5	11.6	— 0.6	12.1	— 0.7	—	—	22.5	— 0.4	30.4	+ 0.2	22.3	+ 0.5	71	—	64	+ 1	34	+ 2	60	— 5
	Tanta	12.7	—	13.1	— 0.2	11.8	— 0.1	12.1	— 0.6	16.2	—	20.0	— 2.7	29.0	— 2.0	22.1	— 0.2	—	—	71	+ 8	35	+ 3	58	— 2
	Shebin el Kom	12.0	—	12.2	— 0.9	11.3	— 0.5	11.5	— 0.9	18.6	—	21.7	— 0.2	28.7	— 2.4	22.8	— 0.7	73	—	69	— 3	26	— 6	48	— 3
	Zagazig	11.4	—	13.3	+ 0.1	10.6	— 1.3	10.9	— 1.9	18.3	—	21.3	— 2.2	29.0	— 2.1	23.3	+ 0.7	79	—	69	+ 7	40	+ 7	63	+ 3
	Zaher (A)	12.4	—	12.8	—	11.4	—	12.0	—	18.4	—	22.6	—	30.0	—	23.3	—	75	—	56	—	26	—	52	—
	Wadi el Natrun	12.4	—	12.8	— 1.0	10.7	— 1.3	11.7	— 1.3	18.8	—	21.6	— 0.9	31.0	— 0.7	24.0	— 0.8	76	—	62	+ 2	23	— 3	48	+ 3
	Abu-Sueir (A)	11.7	—	12.2	—	10.9	—	11.8	—	18.5	—	22.6	—	30.2	—	22.6	—	76	—	57	—	27	—	58	—
Cairo Area	Cairo (A)	11.0	— 1.3	11.7	— 1.1	10.2	— 1.1	11.0	— 1.0	19.3	— 0.7	23.2	+ 0.4	30.3	— 1.2	24.4	— 1.4	66	+ 1	47	— 9	23	— 3	43	— 1
	Almaza (A)	11.0	— 1.0	11.5	— 1.5	10.3	— 1.3	10.8	— 1.4	19.6	— 0.8	23.2	+ 0.3	30.7	— 0.7	25.0	— 1.3	66	+ 2	47	— 8	23	— 1	40	+ 2
	Mostafa Helmi (A)	10.4	—	11.0	—	9.5	—	10.0	—	17.7	—	21.1	—	29.6	—	23.5	—	66	—	50	—	21	—	41	—
	Giza	10.8	—	12.4	— 1.1	11.0	— 0.9	10.9	— 1.8	18.5	—	22.2	— 0.3	30.1	— 1.8	24.5	— 0.6	78	—	56	— 5	25	— 1	42	— 2
	Helwan	—	—	11.8	— 0.6	10.2	— 0.6	10.6	— 0.8	—	—	22.8	— 0.2	30.4	— 1.2	35.3	— 1.1	—	—	48	— 1	21	+ 2	37	+ 5
Upper Egypt	Fayoum	11.1	—	12.0	— 0.7	10.3	— 0.4	10.0	— 1.0	20.6	—	23.9	+ 0.1	32.2	— 0.4	26.0	— 0.3	—	—	51	+ 2	23	+ 2	38	+ 1
	Beni Suef	10.7	—	12.0	— 0.8	10.3	— 0.7	10.2	— 0.9	—	—	24.0	— 0.7	33.5	— 0.2	26.4	— 1.1	45	—	47	0	20	0	33	— 3
	Minya (A)	9.8	— 1.0	11.3	— 0.7	9.6	— 0.5	9.2	— 0.9	19.1	— 0.6	23.6	+ 0.7	33.9	— 0.5	25.9	— 0.1	58	+ 5	48	0	18	0	35	— 1
	Asyoût (A)	9.5	—	12.1	+ 0.5	9.2	0.0	9.2	— 0.6	23.7	—	25.2	— 0.2	34.7	+ 0.1	29.2	+ 0.2	31	—	34	— 7	13	— 5	23	— 5
	Nag Hammadi	9.2	—	11.0	0.0	8.7	0.0	8.9	+ 0.2	25.8	—	25.6	— 1.2	35.5	— 0.1	27.6	— 0.5	54	—	44	+ 2	19	— 2	38	+ 2
	Qena	8.4	—	10.6	+ 0.3	8.8	+ 1.0	8.8	+ 0.9	24.7	—	28.2	0.0	37.2	— 0.8	30.5	— 0.5	33	—	31	— 1	16	0	26	+ 2
	Luxor (A)	8.5	0.0	10.1	+ 0.1	7.7	+ 0.2	7.9	0.0	25.4	+ 0.5	29.2	— 0.7	36.3	— 2.3	31.6	— 0.6	28	— 1	25	— 3	15	0	21	— 1
	Aswan	8.0	—	10.0	+ 0.1	7.1	0.0	7.2	— 0.2	26.6	—	29.9	+ 0.9	38.6	— 0.2	33.7	0.0	25	—	21	— 5	11	— 4	14	— 3
Western Desert	Siwa	10.6	— 1.7	11.9	— 1.7	10.6	0.0	9.8	— 1.5	21.2	+ 0.5	22.2	— 0.2	32.9	0.0	28.7	+ 0.1	41	0	41	— 4	16	— 2	24	— 3
	Bahariya	11.1	—	11.7	— 1.7	10.5	— 0.5	9.6	— 1.9	—	—	23.2	— 0.5	33.7	+ 0.5	28.2	— 0.8	—	—	56	+ 7	32	+ 6	42	+ 7
	Farafra	10.8	—	12.5	—	10.0	—	10.4	—	21.4	—	24.7	—	34.5	—	28.5	—	25	—	27	—	12	—	17	—
	Dakhla	13.7	—	12.3	+ 0.7	10.3	+ 0.7	10.3	+ 0.4	27.0	—	26.1	— 1.2	35.1	— 1.0	31.0	— 0.2	25	—	28	— 1	21	+ 5	17	— 1
	Kharga	8.2	—	9.7	— 1.8	7.6	— 2.2	7.6	— 2.0	24.0	—	27.1	— 0.5	36.5	— 0.2	29.6	— 0.8	29	—	33	— 7	15	—11	21	—11
Red Sea	Suez	12.6	—	12.9	+ 0.3	11.3	— 0.5	11.2	— 0.7	22.9	—	21.7	— 1.6	29.7	— 1.1	26.2	+ 1.1	64	—	66	+ 5	35	+ 1	47	— 6
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	8.6	—	10.2	+ 0.2	8.6	— 0.0	8.4	— 0.1	22.2	—	26.3	+ 0.6	28.7	+ 0.8	25.9	— 0.8	50	—	48	— 4	48	— 9	52	+ 1
	Quseir	—	—	10.3	+ 0.5	9.6	+ 0.2	9.1	+ 0.3	—	—	27.7	— 0.2	27.8	— 1.1	26.3	— 0.4	—	—	49	+ 2	60	+ 2	57	0

TABLE A 2.—SURFACE CLIMATOLOGICAL DATA
MAY 1957

District	Station	Air Temperature (°C)													Rainfall in Millimetres						Mean Evaporation Piche (mms)
		Mean Max.		Mean Min.		Daily Mean A+B / 2	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No. of days with amount of rain			
		Mean (A)	Dev. from Normal	Mean (B)	Dev from Normal		Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				0.1	≥ 1.0	≥ 10.0	
Mediterranean	Sallum	25.9	—0.5	16.6	+0.4	21.2	39.4	1	19.2	9	12.0	10	20.0	27·31	1.7	0.9	22	3	0	0	9.6
	Sidi Barrani	24.4	+0.1	15·4	—0·1	19.9	37.5	1	19.4	9	9.0	10	18.4	21	2.8	2.0	20	2	1	0	6.3
	Marsa Matruh (A)	25.7	+0.9	14.4	—1.6	20.0	35.2	1	20.5	9	7.7	10	20.9	7	5.1	3.8	22	0	2	0	9.6
	Dabaa	25.7	+0.5	15.0	0.0	20.4	33.0	1	20.4	9	9.2	10	19.4	28	5.0	3.0	23	0	2	0	6.7
	Alexandria (A)	27.0	+0.6	15·9	—0.7	21.4	34.0	20	21.4	9	11.6	11	20.8	30	1.0	0.7	22	2	0	0	6.1
	Kom el Nadura	25.0	—1.5	17.4	—0.9	21.2	32.1	20	21.2	10	15.4	1·10	21.0	30	1.0	0.4	22	4	0	0	6.7
	Dekheila (A)	24.4	—	16·1	—	20.2	32.7	20	19.6	9	12.1	1	20.7	30	0.7	0.5	22	2	0	0	5.9
	Damiette	24.8	—2.4	15.0	—2.3	19.9	33.3	2	20.4	10	11.9	6	20.2	30	4.6	4.6	23	0	1	0	4.7
	Port Said (A)	25.4	+0.3	18.3	—1.3	21.8	35.4	2	21.5	9	16.0	1·6	21.6	30	4.6	4.6	23	0	1	0	5.0
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	29.4	—0.8	15·1	—0.6	22.2	33.6	31	23.2	9	11.1	10	18.8	31	tr	tr	*	0	0	0	6.7
	Mansoura	30.2	—0.9	15.8	—0.2	23.0	36.0	1	23.5	9	12.5	1	19.0	8·30	6.0	6.0	23	0	1	0	5.6
	Tanta	30.9	—0.9	14.3	—0.2	22.6	36.7	4·30	27.1	10	9.4	10	17.7	30	13.2	13.2	23	0	0	1	5.8
	Shebin el Kom	30.1	—2·1	15.5	—0.4	22.8	36.2	30·31	23.4	9	13.1	6·10	19.6	2	9.8	9.8	23	0	1	0	7.1
	Zagazig	30.5	—1.3	15.3	—0.1	22.9	36.5	4.31	22.8	9	11.5	10	18.0	30·31	0.0	0.0	—	0	0	0	6.2
	Zaher (A)	31.1	—	15·0	—	23.0	40.0	2	19.4	9	11.2	10	19.2	8	21.0	17.8	9	0	1	1	13.4
	Wadi el Natrun	32.2	—0·7	16.3	—0.1	24.2	38.4	30	24.0	9	11.6	10	19.3	21	1.0	1.0	23	0	1	0	10.5
	Abu Sueir (A)	30.2	—	16.5	—	23.4	37.2	4	19.6	9	13.0	10	21.5	8	5.5	4.8	9	2	1	0	13.7
Cairo Area	Cairo (A)	31.2	—1.5	17.5	—0.1	24.4	38.4	4	19.0	9	14.0	1	20.6	21	5.8	5.8	9	0	1	0	14.5
	Almaza (A)	31.9	—0.7	17.6	—0.2	24.8	39.4	4	19.2	9	14.0	10	21.0	2·21	5.8	5.3	9	3	1	0	11.4
	Mostafa Helmi (A)	30.7	—	16.1	—	23.4	38.2	4	19.7	9	12.2	10	21.1	8	3.2	2.9	9	2	1	0	18.0
	Giza	31.6	—1.0	15.7	+0·7	23.6	38.7	4	19.1	9	11.5	6	19.3	22	5.0	5.0	9	0	1	0	—
	Helwan	31.4	—1.5	18.5	+0.6	25.0	38.8	30	19.2	9	14.1	6	23.6	31	0.3	0.2	9	2	0	0	13.8
Upper Egypt	Fayoum	33.7	0.0	17.3	0.0	25.5	41.6	4	24.0	9	13.0	6	22.3	31	tr.	tr.	*	0	0	0	8.8
	Beni Suef	33.8	—0.2	16·1	+0·1	25.0	41.5	4	26.0	9	11.6	6	19.4	4·31	tr.	tr	5	0	0	0	8.3
	Minya (A)	34.8	—0.6	16·6	—0.1	25.7	43.0	4	29.0	10	11.7	1	22.0	4	8.4	8.4	21	0	1	0	13.2
	Asyoût (A)	35.9	—0·9	20.6	+1.0	28.2	41.5	31	30.9	6	16.4	10	27.8	4	tr.	tr.	12·21	0	0	0	20.6
	Nag Hammadi	35.8	—0.2	18.5	—0.2	27.6	43.7	31	32.8	6·27	12.2	9	24.0	30	0.0	0.0	—	0	0	0	8.9
	Qena	37.8	—1.4	20.7	—0.6	29.2	43.7	31	34.2	12·24	15.6	20	28.3	31	0.0	0.0	—	0	0	0	15.4
	Luxor (A)	37.9	—1·9	21.4	+0.4	29.6	44.1	31	33.9	12	14.5	1	28.6	31	0.0	0.0	—	0	0	0	16.0
	Aswan	39.8	—0.1	23.1	—0.8	31.4	44.7	31	34.4	6	16.5	1	30.0	31	tr.	tr.	*	0	0	0	23.7
Western Desert	Siwa	34.4	+0·4	18.0	+0.8	26.2	41.9	27	27.1	23	13.6	10	23.9	7	3.2	1.6	22	1	2	0	16.9
	Bahariya	34.6	+0·1	17·8	+0.5	26.2	42.4	4	24.6	9	11.5	10	25.7	4	tr.	tr.	*	0	0	0	14.2
	Farafra	35.4	—0.6	18·2	+0.6	26.8	42.8	4	27.8	10	13.8	12	27.0	4	tr.	tr.	21	0	0	0	20.8
	Dakhla	36.9	—0·5	20·5	—0.2	28.7	44.2	4	31.3	10	16.0	24	26.4	4	tr.	tr.	20	0	0	0	18.7
	Kharga	36.4	—1.1	19.6	—1.8	28.0	43.1	31	32.6	24	13.2	1	27.0	31	3.0	3.0	31	0	1	0	12.9
Red Sea	Suez	31.7	—0·8	15.7	—2.9	23.7	38.1	30	25.4	9	11.9	1	20.4	31	10.0	5.0	22	0	4	0	11.6
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurgada	30.6	+0.9	19.7	—1.1	25.2	34.4	30	27.5	1	14.5	1	23.6	5	tr.	tr.	*	0	0	0	15.1
	Quseir	28.7	—2·0	22.8	—0.4	25.8	35.6	5	26.9	12	20.1	1	27.7	31	0.0	0.0	—	0	0	0	14.7

* More than three days.

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

MAY 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandrising or Dustrising	Duststorms or Sandstorms	Gales
Sallum	3	0	0	0	0	0	0	0
Sidi Barrani	3	0	0	0	0	0	1	1
Mersa Matruh (A)	2	0	0	2	1	0	0	0
Alexandria (A)	2	0	0	0	0	0	0	0
Port Said (A)	1	0	0	1	0	0	0	0
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	3	0	1	3	0	0	2	2
Cairo (A)	1	0	0	0	0	0	0	0
Almaza (A)	4	0	0	2	0	0	0	0
Mostafa Helmi (A)	3	0	0	1	0	0	1	0
Minya (A)	1	0	0	1	0	0	1	0
Asyoût (A)	0	0	0	0	0	0	4	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan	0	0	0	0	0	0	2	1
Siwa...	3	0	0	2	0	0	0	0
Hurghada	0	0	0	2	0	0	0	0
Quseir	0	0	0	0	0	0	0	0

TABLE A 4.—NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

MAY 1957

STATION	Calm	Variable	Unrecorded	Wind Speed In Knots	Number of Occurrences of wind blowing from the ranges of directions indicated in degrees from the north												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	
Sidi Barrani	0	0	22	1–10	27	11	11	21	25	13	4	14	1	—	14	21	162
				11–27	91	29	33	77	21	30	26	5	16	40	43	144	555
				28–47	—	—	—	—	—	—	4	1	—	—	—	—	5
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**118**	**40**	**44**	**98**	**46**	**43**	**34**	**20**	**17**	**40**	**57**	**165**	**722**
Mersa Matruh (A)	41	25	2	1–10	22	21	19	39	36	9	2	15	25	32	37	93	350
				11–27	13	18	21	46	28	14	14	3	5	12	68	84	326
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**35**	**39**	**40**	**85**	**64**	**23**	**16**	**18**	**30**	**44**	**105**	**177**	**676**
Alexandria (A)	9	0	6	1–10	81	55	70	45	45	56	7	3	13	14	24	82	495
				11–27	34	48	31	9	15	—	2	2	2	16	19	56	234
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**115**	**103**	**101**	**54**	**60**	**56**	**9**	**5**	**15**	**30**	**43**	**138**	**729**
Port-Said (A)	0	1	17	1–10	75	87	47	34	18	6	5	6	13	18	5	33	347
				11–27	100	80	45	45	6	11	3	2	6	21	20	40	379
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**175**	**167**	**92**	**79**	**24**	**17**	**8**	**8**	**19**	**39**	**25**	**73**	**726**
Cairo (A)	3	19	0	1–10	36	158	124	46	10	4	2	9	28	28	24	64	533
				11–27	8	47	57	15	3	11	4	7	6	10	12	8	188
				28–47	—	—	1	—	—	—	—	—	—	—	—	—	1
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**44**	**205**	**182**	**61**	**13**	**15**	**6**	**16**	**34**	**38**	**36**	**72**	**722**
Almaza (A)	12	1	5	1–10	67	196	29	10	7	9	8	10	22	33	49	38	478
				11–27	41	108	24	16	5	—	16	3	4	16	9	6	248
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**108**	**304**	**53**	**26**	**12**	**9**	**24**	**13**	**26**	**49**	**58**	**44**	**726**
Minya (A)	50	163	4	1–10	244	52	8	9	3	22	12	5	4	11	15	44	429
				11–27	48	13	2	2	—	1	5	2	5	10	7	3	98
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**292**	**65**	**10**	**11**	**3**	**23**	**17**	**7**	**9**	**21**	**22**	**47**	**527**
Luxor (A)	18	42	2	1–10	30	29	28	23	33	50	43	46	39	44	79	205	649
				11–27	1	1	—	—	1	—	2	2	5	3	7	11	33
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**31**	**30**	**28**	**23**	**34**	**50**	**45**	**48**	**44**	**47**	**86**	**216**	**682**
Siwa	0	18	24	1–10	37	26	50	88	54	37	18	11	2	11	31	31	423
				11–27	14	24	42	26	38	14	13	10	7	7	27	57	279
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**51**	**50**	**92**	**114**	**92**	**51**	**31**	**21**	**33**	**18**	**58**	**88**	**702**
Hurghada	0	44	43	1–10	20	33	31	18	42	15	4	2	6	32	48	22	274
				11–27	53	—	2	6	25	17	—	1	—	22	90	158	373
				28–47	—	—	—	—	—	—	—	—	—	—	4	6	10
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**73**	**33**	**33**	**24**	**67**	**32**	**4**	**3**	**6**	**54**	**142**	**186**	**657**

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

MERSA MATRUH (A).—MAY 1957.

Pressure Surface (Millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1130 UT.		Highest	Lowest	obs. at 1130 U.T		Highest	Lowest	obs. at 1130 U.T	
	N	Mean			N	Mean			N	Mean
Surface	11	1009 mb	1015 mb	1004 mb	11	22.5	29.9	20.0	11	**13.7**
1000	11	110	160	64	8	21.7	24.7	19.5	8	**13.8**
850	11	1503	1560	1467	8	14.3	19.4	5.2	7	**3.8**
700	11	3128	3190	3045	10	5.5	9.0	— 0.8	7	**— 1.4**
600	11	4369	4441	4253	11	— 3·6	0.1	— 9.4	6	**— 8.6**
500	11	5780	5867	5638	11	— 8.5	— 7.8	—15.7	—	—
400	11	7444	7547	7289	11	—24.7	—18.7	—27.8	—	—
300	10	9459	9609	9292	10	—39.8	—33.0	—43.0	—	—
200	9	12129	12336	12025	9	—54.4	—48.0	—59.7	—	—
150	8	13930	14202	13720	8	—56.1	—51.7	—58.1	—	—
100	8	16565	16834	16297	7	—57.9	—50.9	—60.5	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N=Number of observations of specified pressure surfaces.

ASWAN—MAY 1957.

Pressure Surface (Millibar)	Heights of pressure surfaces (gmp.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1130 UT.		Highest	Lowest	abs. at 1130 U.T		Highest	Lowest	obs. at 1130 U.T	
	N	Mean			N	Mean			N	Mean
Surface	9	996 mb	1000 mb	993 mb	9	38.5	42.8	34.2	9	**6.5**
1000	—	—	—	—	—	—	—	—	—	—
850	9	1554	1565	1540	9	23.9	30.5	16.2	8	**— 1.0**
700	9	3208	3249	3163	9	11.3	18.8	7.3	4	**— 4.7**
600	9	4470	4540	4414	9	1.7	6.4	— 1.0	4	**—15·7**
500	9	5912	6005	5847	9	— 8.4	— 3.8	—10.8	4	**—14·3**
400	9	7604	7737	7532	9	—20.1	—12.7	—23.3	2	**—26.4**
300	6	9634	9724	9578	6	—36.6	—33.9	—38.6	—	—
200	4	12355	12445	12267	4	—50.3	—50.0	—60.0	—	—
150	3	14218	14285	14168	3	—59.5	—56.9	—64.0	—	—
100	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N = Number of observations of specified pressure surfaces.

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

MAY 1957

STATION	Time of obs. U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm. (N)	Pressure mb. (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Direction 000-360	Speed in knots
Cairo (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mersa Matruh (A)	1130	3861	612	— 7.1	4490	292	— 6.5	2930	710	—	11367	230	—54.4	18750	70	—64.0	10400	253	—52·0	13800	157	270	120
		(11)	(11)	(8)							(9)	(9)	(9)										
Aswan	1130	4682	585	—16.9	5300	546	—	4260	625	—10.5	—	—	—	—	—	—	—	—	—	7300	414	340	63
		(9)	(9)	(4)																			

N = Total number of observations.

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)—1130 U.T.—MAY 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000–360)																						Calm	Total Number of observations	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			
Surface	1	10	—	—	—	—	1	9	1	12	—	—	—	—	—	—	—	—	—	—	5	19	3	10	0	11	14
1000	1	7	—	—	—	—	—	—	1	7	1	32	—	—	—	—	1	13	1	6	3	14	3	17	0	11	15
850	—	—	—	—	—	—	—	—	—	—	1	3	—	—	2	20	—	—	6	22	2	28	—	—	0	11	21
700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	5	1	58	8	38	1	43	—	—	0	11	37
600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	38	8	58	—	—	—	—	0	9	56
500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	49	6	46	—	—	—	—	0	7	46
400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	60	4	56	—	—	—	—	0	5	56
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	76	—	—	—	—	—	—	0	3	76
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	101	—	—	—	—	0	2	101
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

ASWAN—1130 U.T.—MAY 1957.

Pressure Surfaces (mb.)	Wind between specified ranges of Direction (000–360)																						Calm	Total number of observations 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			
Surface ...	4	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	14	1	7	3	10	0	9	10
1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—
850	3	8	2	7	—	—	—	—	—	—	—	—	—	—	1	8	—	—	—	—	3	9	—	—	0	9	8
700	3	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	8	2	12	—	—	2	22	0	9	15
600	1	31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	22	2	20	2	18	3	22	0	9	21
500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	18	4	26	2	30	2	23	0	9	25
400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	44	3	31	3	40	1	52	0	8	39
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	22	1	39	2	47	0	4	38
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGROMETEOROLOGICAL STATION AT GIZA

MAY 1957

This month was precisely normal concerning its temperature and relative humidity. No appreciable rain fell, except on the 9th, when 5 mms. fell in the form of continuous rain, which is considered - in May - very abnormal, whether in amount - which is 5 times the normal, or in type. Mean absolute humidity was about 2 mms. below normal.

Mean temperature of this month was 1°C higher than the previous May, while the relative humidity was practically the same, and the absolute humidity 1 mm. more. The maximum temperature is 2°C more, and the minimum 1.5°C less than May 1956. Minimum absolute humidity was 0.5 mm. higher than last May, while minimum relative humidity was 2% higher.

Minimum and maximum temperatures at 0.3 cm in dry field were 0.5°C higher than the corresponding in May 1956.

The minimum at 5 cms. above dry, wet and grass fields were about 2°C higher than those of the previous May.

Mean wind at 2 meters was slightly less than last May. Total sunshine duration was 44 hours *i.e.* about 11% of the possible less than last year, while the total radiation was about 1400 col/cm^2 less.

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METERS ABOVE THE GROUND

GIZA—MAY 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed meters per second		
	Max.	Min.	Mean * of the day	Day time mean	Night time mean	>90%	>80%	Relative %	Vapour pressure (mms.)	Mean of the day	Day time mean	Night time mean
1	32.6	11.6	22.4	26	18	3	7	19	6.5	1.3	1.5	1.2
2	37.8	18.3	27.1	31	22	0	0	16	7.4	2.6	3.9	1.7
3	36.0	12.2	23.8	27	20	0	3	17	6.9	1.6	2.6	1.0
4	38.7	17.7	27.0	31	22	0	0	24	12.4	2.9	3.8	2.2
5	29.6	16.3	20.9	23	22	2	7	28	8.1	2.8	3.9	2.0
6	29.2	11.5	20.1	22	16	3	7	24	6.9	1.9	2.7	1.3
7	34.4	15.8	24.0	27	19	0	0	18	6.4	2.6	3.3	2.0
8	29.7	19.0	24.5	25	23	0	0	36	10.0	2.6	3.8	1.6
9	19.1	17.3	17.7	20	17	3	13	92	14.0	2.3	1.7	2.7
10	25.6	12.5	19.1	20	16	0	6	45	10.4	2.2	2.9	1.7
11	28.9	14.1	20.9	23	18	0	6	28	7.7	3.1	3.7	2.8
12	31.2	14.3	21.6	25	18	0	7	24	7.7	2.5	2.6	2.4
13	29.0	15.0	21.6	24	20	0	0	36	10.3	2.4	3.7	1.5
14	28.7	15.6	21.2	23	19	0	8	40	11.2	2.5	2.6	2.4
15	31.6	13.2	22.7	25	19	0	7	32	10.5	2.1	2.4	1.9
16	31.9	16.2	23.0	26	21	0	6	31	10.2	2.6	2.7	2.6
17	28.4	16.6	21.9	24	20	0	6	35	9.8	3.8	3.2	4.2
18	28.7	17.0	22.6	24	20	0	2	31	8.4	2.6	2.8	2.4
19	31.5	13.7	23.0	26	21	0	1	22	7.4	2.2	2.5	1.9
20	33.7	12.8	24.5	27	20	0	3	14	5.2	2.3	3.3	2.5
21	35.6	17.5	25.2	29	23	0	0	23	8.8	2.3	2.3	2.2
22	32.7	19.3	24.8	26	22	0	2	31	10.6	2.1	3.6	1.0
23	32.3	16.5	23.5	27	22	0	2	36	12.2	2.3	2.4	2.2
24	30.3	14.8	21.9	25	19	2	7	26	7.9	2.5	3.1	2.0
25	29.8	13.0	21.8	25	18	0	6	25	7.1	2.0	2.8	1.3
26	30.1	15.5	22.9	25	21	0	7	38	11.1	2.4	2.3	2.5
27	31.9	17.3	24.6	27	23	0	2	28	9.2	2.5	3.3	2.0
28	32.7	17.3	24.8	27	23	0	2	27	9.6	3.2	4.7	2.0
29	33.9	17.8	25.1	28	21	0	7	35	13.1	4.4	5.7	3.5
30	37.6	18.3	27.1	30	22	0	6	29	13.1	4.1	5.0	3.5
31	36.1	19.0	27.0	31	24	0	0	24	9.9	3.2	4.1	2.6
Mean	31.6	15.7	23.1	25.7	20·2	—	—	30	9.3	2.6	3.2	2.1
Highest	38.7	—	—	—	—	—	—	—	14.0	—	—	—
Date	4	—	—	—	—	—	—	—	9	—	—	—
Lowest...	—	11.5	—	—	—	—	—	14	5.2	—	—	—
Date	—	6	—	—	—	—	—	20	20	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+\text{Min}}{4}$

Humidity at 2 metres above ground:

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 53%

Lowest relative humidity ... ... 14% on ... ... 20th.

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 10.6 mms.

Highest value of vapour pressure ... ... 15.4 mms. on ... ... 30th.

Lowest value of vapour pressure ... ... 5.2 mms. on ... ... 20th.

TABLE C 2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES.

GIZA—MAY 1957.

DATE	Piche evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 meters height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	16	0	697	9.8	24	24	24	18	14	10	4	0	0
2	25	0	718	11.3	24	24	24	24	23	13	9	5	0
3	18	tr.	581	8.0	24	24	24	21	17	12	5	0	0
4	18	tr,	596	7.5	24	24	24	24	22	13	9	5	0
5	13	0	727	9.6	24	24	24	24	11	6	0	0	0
6	14	0	761	11.5	24	24	24	19	11	6	0	0	0
7	23	0	473	3.1	24	24	24	24	17	11	6	0	0
8	18	tr.	710	10.0	24	24	24	24	21	12	0	0	0
9	2	5	128	0.6	24	24	24	24	0	0	0	0	0
10	11	0	693	10.6	24	24	24	20	11	0	0	0	0
11	15	0	730	11.0	24	24	24	21	12	7	0	0	0
12	15	0	720	10.4	24	24	24	20	16	9	1	0	0
13	15	0	807	12.2	24	24	24	24	14	8	0	0	0
14	12	0	733	11.1	24	24	24	24	13	7	0	0	0
15	16	0	739	12.2	24	24	24	22	17	11	2	0	0
16	16	0	752	12.2	24	24	24	24	16	9	3	0	0
17	14	0	771	12.3	24	24	24	24	15	7	0	0	0
18	15	0	777	12.3	24	24	24	24	17	8	0	0	0
19	17	0	734	11.0	24	24	24	23	18	11	3	0	0
20	24	0	769	11.3	24	24	24	21	17	14	7	0	0
21	16	tr.	553	7.3	24	24	24	24	21	12	7	0	0
22	19	0	778	11.1	24	24	24	24	22	11	3	0	0
23	12	tr.	444	6.2	24	24	24	24	18	9	2	0	0
24	15	0	818	12.2	24	24	24	23	15	8	0	0	0
25	16	0	831	12.4	24	24	24	21	16	9	0	0	0
26	14	0	748	11.1	24	24	24	24	17	11	0	0	0
27	17	0	739	10.7	24	24	24	24	21	12	4	0	0
28	20	0	815	12.8	24	24	24	24	20	12	5	0	0
29	21	0	829	12.7	24	24	24	24	17	12	6	0	0
30	22	0	788	12.6	24	24	24	24	19	13	9	3	0
31	22	0	804	12.4	24	24	24	24	23	14	9	2	0
TOTAL	511	5	21763	319.5	744	744	744	709	511	297	94	15	0
Mean	16.5	0.2	702	10.3	24.0	24.0	24.0	22.9	16.5	9.6	3.0	0.5	0

Percentage of total hours of sunshine duration occurred with respect to the total hours possible... 75%
Maximum amount of rainfall in one day (24 hours) ... ... 5 mms. on 9th

TABLE C 3.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS AND MINIMUM AIR TEMPERATURE AT 5 cms. ABOVE GROUND

GIZA—MAY 1957

Extreme Soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry Soil	63.5	12.5	55.0	14.0	51.5	14.0	40.5	18.5	34.5	21.5	30.5	24.0	28.5	25.5	26.5	24.0	24.0	22.5	22.5	22.5
Wet Soil	38.0	13.0	36.5	13.0	36.5	14.0	30.0	15.0	27.5	17.0	25.0	18.5	23.0	20.5	21.5	19.5	20.0	19.0	—	—
Grass	36.0	15.5	—	—	—	—	27.5	17.5	26.0	18.5	25.5	20.5	23.5	21.0	22.0	20.0	—	—	—	—

Minimum air temperature (°C) at 5 cms. above ground:

Lowest minimum temperature over dry soil ... ... +8.0 °C on 6th.
" " " " wet soil ... ... +8.9 °C on 6th.
" " " " grass ... ... +5.6 °C on 20th.

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MONTHLY WEATHER REPORT

VOLUME 48 NUMBER 6

JUNE 1957

MINISTRY OF WAR—METEOROLOGICAL DEPARTMENT
CAIRO—EGYPT

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CONTENTS

Note: Refer to volume 48 number 1 for the list of stations appearing in the report and for explanatory notes on the tables.

GENERAL SUMMARY OF WEATHER CONDITIONS

EGYPT—JUNE 1957

Normal summer weather in general. Abnormal Local precipitation and thunder in the north with rainfall records.

The main features were :

(*a*) Abnormal heavy rain accompanied by occasional thunder and hail at few localities of Lower Egypt.

(*b*) Almost normal temperatures.

(*c*) Almost humid Lower and Middle Egypt, relatively dry elsewhere.

(*d*) Normal pressure distribution.

General description of weather :

For the month as a whole the weather was almost mild. The barometric pressure was below normal, both maximum and minimum temperatures were slightly oscillating round normal. Though the month is usually dry, abnormal rain was reported at Damietta, Mansoura, Abu Sueir and Cairo. The mean daily relative humidity reached 72.3% at Alexandria (Kom el Nadura), 53.5% at Giza and 41.5% at Helwan.

Pressure and Wind.

The outstanding features of the pressure distribution during the month were :

(*a*) The characteristic S shaped isobars over East Mediterranean round the westward elongation of the Iraq monsoon.

(*b*) High pressure occupying Mediterranean and northern districts.

The small articyclone occupying the Western Desert intensified two times this month during the following two periods respectively : (1st–4th) and (17th–23rd) and the barometric pressure over Egypt in general was above normal.

On the other hand shallow depressions (thermal) appeared over East Mediterranean at the west arm of the Iraq monsoon during the intervals (5th–16th) and (24th–29th), causing consecutive oscillations in the barometric pressure below normal all over the country.

Light to moderate Nly winds prevailed all over the country most of the month, though fresh NWly winds were infrequent over the Mediterranean and Red Sea coasts.

Temperature :

During the 1st third of the month, maximum temperature was above normal west coast ; slightly below normal Lower Egypt, while over Upper Egypt it oscillated round normal.

During the 2nd third of the month, maximum temperature continued above normal west coast, below normal elsewhere.

During the rest of the month, a widespread heat wave prevailed all over the country, though it was light in Lower Egypt, moderate elsewhere.

Minimum temperature was slightly above normal most of the month in Lower Egypt, below normal elsewhere.

Precipitation.

This month was characterised by abnormal heavy rain over Damat, Mahalla and Samannoud on the 11th; over Cairo and Mansoura on the 12th, and over Kafr el Sheikh, Damietta and Shebin el Kom on the 17th.

Rain was confined to small areas and of short duration, while it was sometimes accompanied with thunderstorms and hail. On the 12th Mansoura and Cairo reported 25 mm. and 3.6 mm. respectively, while 5,8 mms, fell over Damietta on the 17th which are records of this month since observations started at these stations.

Miscellaneous weather phenomena :

(*a*) Early morning fog patches developed at Alexandria on the 6th, Abu Sueir on the 1st, 23rd, 24th, and 25th, Cairo on the 2nd, 24th, and 25th, Almaza on the 22nd and Mostafa Helmi on the 15th, and 21st.

(*b*) Sandstorms were reported at Hurghada on the on the 4th.

(*c*) Occasional thunderstorms and showers of hail occurred over Damat, Samannoud, and Mahalla on the 11th, and over Kafr el Sheikh on the 17th.

M. F. TAHA
Director General.

Cairo on 1/6/1958

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA
JUNE 1957

District	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (° C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	12.4	—	12.9	+0.1	12.9	+0.3	12.8	+0.1	22.3	—	25.5	+0.4	28.7	+0.7	24.7	+0.7	80	—	64	+ 3	54	+ 4	71	+ 6
	Sidi Barrani	12.1	—	12.6	+0.3	12.9	+0.4	12.5	+0.5	19.9	—	23.8	—0.2	25.8	0.0	22.9	—0.3	83	—	72	0	65	+ 1	78	+ 2
	Mersa Matruh (A)	12.1	—0.2	12.5	—0.2	12.7	—0.1	12.6	0.0	19.5	—	24.5	+0.9	26.9	+1.5	22.7	+0.6	82	—	65	—13	56	—16	77	— 2
	Dabaa	11.4	—	11.0	—	11.2	—	11.1	—	21.7	—	24.0	—0.4	26.9	+0.1	22.9	—3.2	82	—	71	+ 1	56	— 3	76	— 3
	Alexandria (A)	10.8	—0.2	11.4	—0.2	11.5	—0.1	11.3	—0.1	21.5	+0.2	25.0	0.0	27.6	+0.4	23.2	0.0	82	— 3	71	+ 2	62	+ 1	80	+ 1
	Kom el Nadura	10.3	—	12.0	+0.2	11.9	+0.3	11.8	+0.2	22.1	—	23.8	—0.3	25.9	—0.8	23.1	—0.3	80	—	76	+ 3	69	+ 3	80	+ 2
	Dekheila (A)	11.5	—	11.8	—	11.8	—	11.3	—	21.3	—	23.9	—	26.1	—	22.7	—	87	—	77	—	69	—	83	—
	Damietta	11.1	—	11.2	—0.4	11.1	—0.1	11.2	0.0	22.8	—	23.5	—2.5	28.1	+1.0	24.7	+1.1	82	—	81	+13	54	— 9	73	— 9
	Port Said (A)	10.3	—0.3	10.8	—0.5	10.4	—0.4	10.4	—0.4	23.4	0.0	25.2	—0.2	27.7	+0.6	24.5	—0.1	80	+ 2	71	+ 2	63	— 2	76	0
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	9.5	—	11.5	—0.7	11.2	—0.6	11.3	—0.6	20.5	—	23.9	—1.9	30.5	+0.1	23.7	—0.1	82	—	77	+12	45	0	76	+ 4
	Mansoura	11.1	—	11.6	—0.3	10.3	—0.5	10.8	—0.8	21.9	—	24.9	- 0.5	32.8	+0.2	25.4	+0.5	67	—	70	+ 5	34	0	61	— 4
	Tanta	12.0	—	12.2	+0.5	11.4	+1.0	11.5	+0.4	20.5	—	22.2	—3.2	32.4	—0.7	26.1	+0.9	89	—	78	+13	37	+ 4	58	— 2
	Shebin el Kom	10.0	—	11.2	—0.7	9.7	—0.9	10.0	—1.4	20.8	—	23.9	—1.3	32.3	—1.1	26.2	—0.1	86	—	75	+11	33	+ 2	55	+ 2
	Zagazig	10.4	—	11.1	—1.1	9.9	—1.2	10.5	—1.1	21.4	—	23.7	—2.2	32.1	—1.3	26.8	+0.8	75	—	77	+10	41	+ 6	59	— 1
	Zaher (A)	11.7	—	12.0	—	10.7	—	10.9	—	21.5	—	24.5	—	33.2	—	27.2	—	80	—	69	—	28	—	49	—
	Wadi el Natrun	11.8	—	11.9	+0.3	10.2	+0.2	11.2	+0.2	21.8	—	22.8	—2.1	33.9	+0.1	25.5	—0.5	—	—	87	+21	32	+ 1	57	+ 4
	Abu-Sueir (A)	11.0	—	11.5	—	9.8	—	10.6	—	21.5	—	24.5	—	33.6	—	27.1	—	75	—	70	—	23	—	59	—
Cairo Area	Cairo (A)	10.6	—1.1	11.3	—0.8	9.6	—0.6	10.3	—0.9	21.4	—0.7	23.8	—0.6	33.0	—0.4	27.8	—0.7	78	+ 6	71	+ 5	27	— 1	41	— 3
	Almaza (A)	10.7	—0.3	11.2	—0.3	9.7	—0.3	10.0	—0.4	21.8	—0.8	23.9	—0.7	33.3	—0.1	28.4	—0.6	72	+ 1	70	+ 5	25	— 4	39	— 3
	Mostafa Helmi (A)	10.1	—	10.4	—	8.8	—	9.4	—	20.1	—	22.8	—	32.5	—	26.9	—	83	—	70	—	23	—	40	—
	Giza	10.9	—	11.9	+0.5	10.6	+0.6	10.4	—0.2	20.9	—	23.7	—1.0	32.8	—1.3	27.7	—0.3	81	—	71	+ 6	27	— 1	40	— 3
	Helwan	—	—	11.4	—0.4	9.4	—0.4	9.9	—0.4	—	—	24.1	—0.5	33.0	—0.6	28.8	—0.4	—	—	63	+ 7	22	+ 1	33	+ 1
Upper Egypt	Fayoum	11.1	—	11.5	—0.4	9.8	—0.1	9.6	—0.3	22.8	—	26.0	+0.6	34.2	—0.1	29.3	0.0	—	—	59	+ 2	26	+ 4	38	+ 4
	Beni Suef	10.7	—	11.5	+0.4	10.1	+0.9	9.8	+0.4	—	—	26.2	—0.8	35.3	—0.4	29.3	—0.1	45	—	57	+ 4	21	— 1	32	— 4
	Minya (A)	9.5	—0.5	10.7	—0.3	9.2	0.0	8.7	—0.1	21.5	—0.4	25.0	—0.2	34.8	—0.6	27.0	—0.8	57	— 2	60	+ 3	22	0	39	0
	Asyoût (A)	9.1	—	10.6	+0.2	8.6	+0.4	8.6	+0.5	24.8	—	25.9	—1.2	35.4	—0.5	30.1	—0.9	35	—	42	— 3	17	— 2	22	— 6
	Nag Hammadi	8.0	—	9.8	+0.3	7.9	+0.5	8.0	+0.8	26.4	—	26.1	—2.2	35.6	—0.9	29.2	—0.4	53	—	52	+ 8	25	+ 2	40	+ 4
	Qena	8.0	—	9.2	+0.5	7.4	+1.1	7.5	+0.9	25.0	—	29.0	—1.1	37.1	—2.9	30.9	—2.3	41	—	36	+ 2	22	+ 6	29	+ 6
	Luxor (A)	7.0	+0.3	8.5	+0.4	6.5	+0.7	6.4	+0.5	26.6	+0.2	31.3	—0.4	39.2	—0.2	32.9	—0.5	32	+ 2	30	+ 2	15	0	24	+ 3
	Aswan	6.8	—	8.6	+0.2	6.0	+0.2	6.1	+0.1	27.9	—	31.8	+0.7	40.3	—0.3	35.2	—0.8	24	—	21	— 5	9	— 6	11	— 5
Western Desert	Siwa	12.2	+0.4	13.3	+0.1	11.7	+0.1	10.8	+0.1	23.8	—0.2	24.7	—0.5	35.7	0.0	32.4	+0.2	42	— 5	47	— 4	15	— 4	20	— 6
	Bahariya	10.9	—	12.3	—0.8	11.2	+0.4	10.7	—0.5	22.9	—	24.8	—0.5	34.6	—0.3	30.3	+0.6	62	—	58	+ 4	32	+ 6	32	— 3
	Farafra	11.5	—	13.2	—	11.0	—	10.9	—	23.1	—	26.7	—	35.9	—	30.5	—	24	—	29	—	13	—	17	—
	Dakhla	10.5	—	11.8	+0.7	9.9	+0.7	9.7	+0.3	26.1	—	28.5	—0.7	37.0	+0.4	32.5	+0.3	30	—	32	— 2	21	+ 1	25	+ 3
	Kharga	7.8	—	8.1	—2.3	7.0	—1.8	9.0	0.0	25.5	—	29.0	—0.5	37.7	—0.2	31.8	—0.8	31	—	34	— 7	18	— 9	22	— 9
Red Sea	Suez	10.8	—	11.3	—0.1	9.6	—0.8	9.9	—0.1	24.6	—	25.1	—0.3	33.4	+0.1	29.1	+1.3	62	—	65	0	28	— 6	42	— 9
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	6.6	—	8.1	+0.4	6.6	+0.4	6.4	+0.8	25.7	—	29.0	+1.6	31.4	+1.8	28.9	—0.6	38	—	44	—13	41	—17	45	— 5
	Quseir	—	—	8.2	+0.2	7.7	—0.2	7.3	+0.2	—	—	29.8	0.0	31.0	+0.1	29.1	+0.1	—	—	48	— 2	49	— 7	47	— 5

TABLE A. 2—SURFACE CLIMATOLOGICAL DATA

JUNE 1957

District	Station	Air Temperature (°C)												Rainfall in mms.						Mean Evaporation Piche (mms)
		Mean Max. (A)	Dev. from Normal	Mean Min. (B)	Dev. from Normal	Daily Mean A+B / 2	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No of days with amount of rain			
							Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				≥ 0·1	≥ 1.0	≥ 10	
Mediterranean	Sallum	30.7	+1.0	20.5	+1.4	25.6	36.4	25	26.5	17	17.0	19	24.0	26·30	0	0	—	0	0	0	8.8
	Sidi Barrani ...	26.3	—0.7	18.7	—1.0	22.5	30.6	6	24.6	9	14.4	5	23.0	26	0	0	—	0	0	0	6.5
	Mersa Matruh (A)	28.3	+1.1	17.7	—1.4	23.0	33.2	6	26.2	8	12.6	6	21.5	25	0	0	—	0	0	0	11.3
	Dabaa	27.8	—0.2	17.5	—0.9	22.6	30.6	25.26	25.4	4	9.0	6	22.8	25	0	0	—	0	0	0	7.3
	Alexandria (A)	28.2	0.0	20.6	+0.4	24.4	30.8	30	26.4	1	16.6	6	23.7	22	tr.	tr.	9	0	0	0	5.0
	Kom el Nadura	27.3	—1.2	21.2	0.0	24.2	29.9	26	25.2	1	19.2	7	23.2	22·27	0	0	—	0	0	0	4.8
	Dekheila (A)	26.8	—	20.6	—	23.7	29.1	26	24.8	4	16.5	14	23.0	*	0	0	—	0	0	0	5.0
	Damietta	28.9	—0.8	18.6	—1.3	23.8	34.9	27	25.8	10	16.3	8	20.7	26	5.8	5.8	17	0	1	0	4.8
	Port Said (A)	30.2	+1.8	21.1	—1.4	25.6	36.5	27	27.8	4	20.0	6	24.0	22	tr.	tr.	16	0	0	0	5.4
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour ...	31·4	—0.5	18.8	+0.4	25.1	36.4	26	27.4	10	15.2	6	22.9	26	0	0	—	0	0	0	5.7
	Mansoura	33.6	—0.2	19.1	+0.3	26.4	38.2	26	30.5	10·11·17	16.0	6	23.0	26	25.0	25.0	12	0	0	1	4.5
	Tanta	33.9	—0.1	17.5	+0.4	25.7	38.2	27	29.8	10	14.4	5	21.6	26	0	0	—	0	0	0	6.9
	Shebin el Kom ...	33.6	—1.0	19.6	+0.9	26.6	38.4	27	30.1	10	16.6	5	23.1	26	tr.	tr.	17	0	0	0	6.0
	Zagazig	33.6	—0.5	18.6	+0.5	26.1	38.1	25	30.0	10	15.0	5	22.7	26	0	0	—	0	0	0	6.5
	Zaher (A)	33.9	—	20.1	—	27.0	38.8	27	30.2	11	17.7	5	22.7	26	0	0	—	0	0	0	13.6
	Wadi el Natrun	35.0	0.0	19.2	+0.3	27.1	38.9	23	31.4	10	16.4	7	22.7	26	0	0	—	0	0	0	10.0
	Abu Sueir (A)	34.3	—	19.8	—	27.0	39.1	27	30.5	11	16.4	5	22.8	26	0.1	0.1	11	1	0	0	14.3
Cairo Area	Cairo (A)	34.1	—0.6	19.8	—0.2	27.0	38.3	27	30.6	11	17.1	6	22.4	26	3.6	3.6	12	0	1	0	14.4
	Almaza (A)	34.5	—0.3	20.2	—0.3	27.2	39.7	27	31.6	29	17.7	6	22.6	26	0	0	—	0	0	0	10.6
	Mostafa Helmi(A)	33.5	—	18.8	—	26.2	38.0	27	30.6	19	16.5	6	21.5	26·27	0	0	—	0	0	0	19.7
	Giza	34.0	—0.9	19.5	+1.6	26.8	38.9	25·27	30.4	11	17.1	6	22.8	26	tr.	tr.	12	0	0	0	[illegible]
	Helwan	33.9	—1·0	19.8	—0.5	26.4	38.4	26	30.4	11	16.7	5	22.4	26	0	0	—	0	0	0	14.8
Upper Egypt	Fayoum	35.8	+0.1	20.0	+0.4	27.9	39.6	27	32.6	11	17.8	5·6	22.4	27	0	0	—	0	0	0	9.4
	Beni Suef ...	35.8	—0.1	18.5	—0.2	27.2	39.0	27	32.5	11	15.4	7	21.2	28	0	0	—	0	0	0	10.1
	Minya (A)	35.8	—0.5	18 4	—0.4	27.1	39.2	27	33.1	5	15.1	4	22.0	28	0	0	—	0	0	0	13.8
	Asyout (A)	36.9	—0·5	21.8	+0.4	29.4	41.5	22	33.0	4	18.0	4	25.0	28	0	0	—	0	0	0	23.0
	Nag Hammadi ...	37.4	0.0	20.2	+0.1	28.8	42.0	1	34.8	9	17.3	5	23.0	23	0	0	—	0	0	0	8.5
	Qena	38.5	—2.6	21.9	—1.5	30.2	42.0	1·3	35.3	11	18.6	11·12	26.3	1	0	0	—	0	0	0	15.0
	Luxor (A)	40.4	—0.2	22.2	—0.4	31.3	45.0	22	36.3	4	19.0	5·12	25.7	2	0	0	—	0	0	0	17.8
	Aswan	41.6	—0.2	23.8	—1.9	32.7	46.2	23	38.1	4	20.1	6	28.9	1	0	0	—	0	0	0	22.1
Western Desert	Siwa	37.1	+0.2	19.8	—0.6	28.4	41.0	2·24	32.0	17	16.5	4	24.4	25	0	0	—	0	0	0	17.7
	Bahariya	36.2	—0.1	19.3	+0.2	27.8	40.9	27	32.3	11	15.8	5	22.3	28	0	0	—	0	0	0	11.5
	Farafra	35.8	—1.3	19.7	+0.2	27.8	40.8	27	32.7	4	15.6	4	24.5	27	0	0	—	0	0	0	22.7
	Dakhla	37.8	0.0	22.3	—0.8	30.0	41.4	28	33.6	4	17.6	7	28.3	1	0	0	—	0	0	0	21.1
	Kharga	38.5	—0.2	21.6	—1.8	30.0	42.1	28	33.5	4	16.8	11	28.0	23	0	0	—	0	0	0	15.5
Red Sea	Suez	35.2	+0.3	19.1	—1.8	27.2	39.7	26	31.8	5	13.9	8	22.2	28	0	0	—	0	0	0	15.1
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada ...	33.1	+1.5	23.0	—0.7	28.0	37.2	3	30.8	5	19.4	7	26.5	29	0	0	—	0	0	0	21.8
	Quseir	32.2	—0.4	25.2	—0.4	28.7	34.9	28	29.5	4	20.8	7	27.8	28·29	0	0	—	0	0	0	20.6

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

JUNE 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandriising or Dustrising	Duststorms or Sandstorms	Gales
Sallum	0	0	0	0	0	0	0	0
Sidi Barrani	0	0	0	0	0	0	0	0
Mersa Matruh (A)	0	0	0	0	0	1	0	0
Alexandria (A)	0	0	0	0	1	0	0	0
Port Said (A)	0	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	1	0	0	0	4	2	0	0
Cairo (A)	1	0	0	0	3	2	0	0
Almaza (A)	0	0	0	0	1	2	0	0
Mostafa Helmi (A)	0	0	0	0	2	0	0	0
Minya (A)	0	0	0	0	0	0	0	0
Asyoût (A)	0	0	0	0	0	0	0	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan	0	0	0	0	0	0	0	0
Siwa	0	0	0	0	0	0	0	0
Hurghada	0	0	0	0	0	0	1	0
Quseir	0	0	0	0	0	0	0	0

TABLE A—4 NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

JUNE 1957

STATION	Calm	Variable	Unrecorded	Wind Speed in Knots	Number of occurrences of wind blowing from ranges of direction indicated in degrees from the north												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	
Sidi Barrani	43	20	15	1—10	13	28	12	1	11	9	4	45	20	42	38	62	285
				11—27	6	18	7	2	3	2	9	88	3	2	41	174	355
				28—47	—	—	—	—	—	—	—	1	—	—	1	—	2
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**19**	**46**	**19**	**3**	**14**	**11**	**13**	**134**	**23**	**44**	**80**	**236**	**642**
Mersa Matruh (A) ...	38	19	4	1—10	5	12	3	2	3	5	5	31	33	117	32	48	296
				11—27	6	25	3	—	1	—	—	92	—	45	80	111	363
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**11**	**37**	**6**	**2**	**4**	**5**	**5**	**123**	**33**	**162**	**112**	**159**	**659**
Alexandria (A) ...	2	20	0	1—10	96	34	8	2	9	6	5	4	2	16	80	164	426
				11—27	44	8	—	—	—	—	—	—	—	3	50	167	272
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**140**	**42**	**8**	**2**	**9**	**6**	**5**	**4**	**2**	**19**	**130**	**331**	**698**
Port-Said (A) ...	0	1	1	1—10	30	65	27	1	2	2	—	35	33	88	94	99	476
				11—27	24	5	—	—	—	—	—	40	6	17	58	92	242
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**54**	**70**	**27**	**1**	**2**	**2**	—	**75**	**39**	**105**	**152**	**191**	**718**
Cairo (A) ...	7	28	37	1—10	29	161	48	14	2	3	—	79	11	58	111	92	608
				11—27	6	13	1	—	—	—	—	3	—	3	10	4	40
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**35**	**174**	**49**	**14**	**2**	**3**	—	**82**	**11**	**61**	**121**	**96**	**648**
Almaza (A) ...	2	0	0	1—10	45	118	9	—	—	—	1	80	20	81	134	105	593
				11—27	25	17	2	—	—	—	—	7	—	4	56	14	125
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**70**	**135**	**11**	—	—	—	**1**	**87**	**20**	**85**	**190**	**119**	**718**
Minya (A) ...	18	16	23	1—10	106	71	—	—	—	—	—	8	—	1	240	57	483
				11—27	73	24	1	—	1	—	—	1	—	—	69	11	180
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**179**	**95**	**1**	—	**1**	—	—	**9**	—	**1**	**309**	**68**	**663**
Luxor (A) ...	58	75	0	1—10	10	13	6	13	14	34	52	50	37	75	139	116	559
				11—27	—	—	—	—	—	—	—	—	—	5	11	12	28
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**10**	**13**	**6**	**13**	**14**	**34**	**52**	**50**	**37**	**80**	**150**	**128**	**587**
Siwa	45	33	34	1—10	27	68	74	15	37	22	6	23	4	4	65	63	408
				11—27	12	81	26	—	—	—	—	3	—	—	33	45	200
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**39**	**149**	**100**	**15**	**37**	**22**	**6**	**26**	**4**	**4**	**98**	**108**	**608**
Hurghada	2	4	3	1—10	17	17	11	6	12	14	2	1	1	31	82	30	224
				11—27	105	16	1	—	1	—	—	—	—	34	128	106	451
				28—47	—	—	—	—	—	—	—	—	—	—	22	14	36
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**122**	**33**	**12**	**6**	**13**	**14**	**2**	**1**	**1**	**65**	**232**	**210**	**711**

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A) — JUNE 1957

Pressure Surface (millibar)	Height of Pressure Surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1130 U.T.		Highest	Lowest	obs. at 1130 U.T.		Highest	Lowest	obs. at 1130 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	23	1003mb	1007mb.	1000mb	23	32.8	38.0	28.8	23	14.0
1000	23	098	133	070	23	32.4	36.0	28.3	23	14·0
850	23	1513	1548	1489	23	16.5	22.0	12.2	23	7.0
700	23	3143	3203	3093	23	8.6	13.8	2.8	6	—10.1
600	23	4398	4481	4321	23	1.0	6.2	— 4.3	—	—
500	23	5837	5946	5739	23	— 8.5	— 3.3	—12.8	3	—22.0
400	22	7529	7691	7412	22	—20.2	—12.3	—26.2	—	—
300	22	9580	9788	9444	22	—33.9	—27.4	—40.4	—	—
200	22	12322	12568	12117	22	—50·0	—45.0	—55.3	—	—
150	20	14446	14453	13985	20	—59.3	—48.8	—62.3	—	—
100	20	16676	16897	16537	20	—63.8	—57.0	—73.0	—	—
60	15	19784	19952	19637	15	—57.9	—53.1	—63.8	—	—
40	10	22392	22460	22334	10	—48.9	—47.4	—54.0	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

No correction for radiation is applied.

N—Number of observations of specified pressure surfaces.

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

JUNE 1957

STATION	Time of observation U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm (N)	Pressure mb (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Dir. (000-360)	Speed in knots
CAIRO (A)	1130	4533 (23)	590 (23)	—	5440	533	—	3530	663	—	14025 (20)	160 (20)	—58.6 (20)	17780	082	—72.5	10380	260	—44.3	11500	278	220	95
MERSA MATRUH (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ASWAN	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = Total number of observations.

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

CAIRO (A).— 1130 U.T. — JUNE 1957

Pressure Surfaces mb.	Wind between Specified ranges of Direction (000-360)																						Calm	Total Number of observations (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			
Surface ...	2	6	5	7	—	—	—	—	1	13	—	—	—	—	—	—	1	9	2	5	7	3	5	4	0	23	5
1000	1	10	4	7	—	—	—	—	1	13	—	—	—	—	—	—	1	9	2	5	7	2	4	5	0	20	5
850	2	11	6	13	—	—	—	—	—	—	—	—	—	—	—	—	1	4	5	13	2	11	2	8	0	18	11
700	2	11	1	9	1	6	—	—	—	—	—	—	—	—	—	—	3	9	5	20	5	17	1	8	0	18	14
600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	14	7	20	4	17	2	12	1	19	16
500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	9	6	19	8	25	3	19	1	13	1	20	20
400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	23	7	34	9	33	3	19	—	—	—	20	31
300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	48	8	42	10	38	1	15	—	—	—	20	39
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	70	6	52	7	54	—	—	1	10	—	18	54
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	48	6	52	3	38	—	—	—	—	—	13	47
100	—	—	—	—	—	—	—	—	—	—	—	—	4	27	3	38	5	38	—	—	—	—	—	—	—	12	34
60	—	—	—	—	—	—	1	28	3	26	2	20	—	—	3	20	—	—	—	—	—	—	—	—	—	9	22
40	—	—	—	—	—	—	2	26	—	—	—	—	—	—	1	19	—	—	—	—	—	—	—	—	—	3	24
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGROMETEOROLOGICAL STATION AT GIZA

JUNE 1957

Mean air temperature of this month was normal-same as the previous June-while its mean relative and absolute humidity were slightly above normal. (Last June was practically normal). Drops of light showers fell on the 12th, which is an infrequent phenomenon. On the whole, this month can be described as " mild ", with no extremely dry and hot periods. The minimum relative humidity, reached 15 % in contrast with 9% for the previous June while the extreme maximum near the end of the month reached 38.9°C against 41.6°C last year.

The maximum soil temperature at 0.3 cm in dry field was very high, being 68°C, 4°C higher than last June.

On the whole, the maximum soil temperatures at different depths in the dry field were higher than the corresponding values for last year by an amount ranging from 2°C at 5 cms. to 0.5°C at 200 cms., while the minimum temperatures were higher by an amount ranging from 0°C at small depths up to 0.5 to 1 °C at deeper depths.

Mean wind at 2 meters was slightly less than last June. Total sunshine duration was 3% of the possible, less than June 1956, while total solar+sky radiation was 1400 calories/cm^2 more.

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METERS ABOVE THE GROUND

GIZA—JUNE 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed meters per second		
	Max.	Min.	Mean of the day*	Day time mean	Night time mean	>90%	>80%	Relative %	Vapour pressure (mms)	Mean of the day	Day time mean	Night time mean
1	35.5	19.7	26.4	30	23	0	7	28	11.3	3.1	3.5	2.8
2	36.3	18.7	26.0	31	23	4	6	24	10.4	2.9	3.4	2.6
3	33.1	17.2	24.4	28	23	1	4	22	8.5	3.1	5.1	1.7
4	32.7	18.5	24.5	27	20	0	8	26	9.1	3.1	3.7	2.6
5	31.9	18.1	24.2	26	21	0	7	30	10.0	2.3	2.7	2.0
6	34.6	17.1	25.3	28	22	2	6	19	7.5	2.9	3.8	2.2
7	34.6	18.1	26.1	29	23	0	3	18	7.2	3.2	3.9	2.8
8	32.5	21.9	25.0	27	22	0	4	35	11.7	2.8	3.8	2.2
9	31.8	19.4	24.4	27	22	0	5	39	12.8	2.5	3.7	1.8
10	31.2	17.4	23.2	26	22	0	6	43	13.2	2.2	3.6	1.3
11	30.4	18.6	24.2	26	22	0	5	44	13.4	1.9	2.2	1.7
12	31.8	18.6	24.7	27	23	0	5	37	12.1	2.2	2.3	2.2
13	33.4	18.7	25.9	28	23	0	6	33	11.9	1.9	2.3	1.6
14	33.5	18.4	25.0	28	24	2	8	32	11.5	2.4	2.9	2.1
15	33.7	19.1	25.2	28	24	0	4	26	9.5	2.5	3.7	1.7
16	31.9	17.6	24.5	27	22	0	4	42	14.4	1.9	2.9	1.2
17	32.3	19.0	24.9	27	22	0	6	40	13.2	1.6	1.9	1.5
18	32.1	20.2	25.7	28	24	0	8	39	13.2	2.7	3.4	2.3
19	32.6	20.0	25.8	28	24	1	8	35	12.5	3.2	4.1	2.6
20	33.1	19.6	26.0	28	23	3	6	29	10.9	3.1	4.5	2.2
21	35.0	17.2	26.3	29	23	4	7	25	10.4	2.9	4.3	2.0
22	36.5	20.7	27.8	31	25	3	6	32	13.9	3.0	3.8	2.3
23	36.9	22.5	28.4	31	26	0	6	32	13.7	2.6	3.4	2.0
24	37.4	21.3	28.3	31	26	0	6	30	13.3	2.2	2.6	1.9
25	38.9	21.8	29.0	32	25	0	5	18	8.9	2.2	2.7	1.9
26	38.5	22.8	29.1	32	26	0	5	22	10.3	2.0	2.6	1.6
27	38.9	21.4	28.8	32	26	0	5	20	9.7	1.7	2.3	1.3
28	35.0	22.0	26.8	29	26	0	7	30	11.7	2.6	3.5	2.1
29	31.7	18.7	24.9	27	23	0	1	35	11.4	3.0	3.8	2.4
30	33.2	21.0	27.0	29	24	0	2	35	12.4	2.6	3.2	2.2
Mean	34.0	19.5	25.9	28.6	23.4	—	—	31	11.3	2.6	3.3	2.0
Highest	38.9	—	—	—	—	—	—	—	14.4	—	—	—
Date	25, 27	—	—	—	—	—	—	—	16	—	—	—
Lowest...	—	17.1	—	—	—	—	—	18	7.2	—	—	—
Date	—	6	—	—	—	—	—	7·25	7	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+\text{Min}}{4}$

Humidity at 2 metres above ground:

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 58%

Lowest relative humidity ... ... 15% on 25th

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 13.2 mms.

Highest value of vapour pressure ... ... 18.7 mms. on ... ... 25th and 27th

Lowest value of vapour pressure ... ... 6.3 mms. on 6th

TABLE C 2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES

GIZA—JUNE 1957.

DATE	Piche Evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 meters height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	19	0	809	11.6	24	24	24	24	23	13	8	0	0
2	18	0	769	10.6	24	24	24	24	20	13	8	2	0
3	24	0	827	12.6	24	24	24	24	19	11	6	0	0
4	19	0	819	11.8	24	24	24	24	16	11	6	0	0
5	17	0	830	12.5	24	24	24	24	16	11	5	0	0
6	22	0	815	12.4	24	24	24	24	18	12	7	0	0
7	23	0	835	12.6	24	24	24	24	20	14	8	0	0
8	16	0	745	10.7	24	24	24	24	18	11	5	0	0
9	16	0	831	11.7	24	24	24	24	18	11	4	0	0
10	14	0	783	11.2	24	24	24	24	18	9	1	0	0
11	12	0	796	11.6	24	24	24	24	19	11	0	0	0
12	13	tr.	752	10.5	24	24	24	24	21	12	4	0	0
13	15	0	808	12.5	24	24	24	24	20	14	8	0	0
14	17	0	815	12.0	24	24	24	24	22	13	7	0	0
15	18	0	832	12.6	24	24	24	24	22	12	6	0	0
16	14	0	714	11.4	24	24	24	24	18	12	3	0	0
17	12	0	745	11.9	24	24	24	24	21	13	5	0	0
18	15	0	804	12.3	24	24	24	24	24	13	6	0	0
19	18	0	808	11.4	24	24	24	24	24	13	7	0	0
20	20	0	835	12.8	24	24	24	24	24	12	7	0	0
21	21	0	816	12.1	24	24	24	24	18	14	9	0	0
22	21	0	780	12.4	24	24	24	24	24	15	10	4	0
23	19	0	805	12.5	24	24	24	24	24	15	10	5	0
24	18	0	820	11.5	24	24	24	24	24	15	10	5	0
25	18	0	802	11.6	24	24	24	24	24	16	10	6	0
26	19	0	777	11.5	24	24	24	24	24	18	11	6	0
27	18	0	810	10 9	24	24	24	24	24	17	10	6	0
28	19	0	814	9.4	24	24	24	24	24	13	7	0	0
29	18	0	818	12.7	24	24	24	24	23	13	4	0	0
30	19	0	803	12.5	24	24	24	24	24	16	8	0	0
TOTAL ...	532	tr.	24007	353.8	720	720	720	720	634	393	200	34	0
Mean	17.7	0.0	800	11.8	24.0	24.0	24.0	24.0	21.1	13.1	6.7	1.1	0

Percentage of total hours of sunshine duration occurred with respect to the total hours possible...84%
Maximum amount of rainfall in one day (24 hours) ... ... traces on 12th

TABLE C 3.—EXTREME SOIL TEMPERATURES AT DIFFERENT DEPTHS AND MINIMUM AIR TEMPERATURE AT 5 cms. ABOVE GROUND

GIZA—JUNE 1957.

G. O., Govt. Printing Offices 12359-1957-1·0 ex.

Extreme soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry soil	68.0	19.0	(66.5*)	21.0	(59.5*)	21.5	44.0	26.0	38.5	28.0	34.5	29.5	32.0	29.0	29.0	26.5	25.5	24.0	24.0	23.0
Wet soil	38.0	18.5	37.0	18.5	36.0	18.5	32.0	19.0	30.0	21.0	28.0	22.5	26.0	23.0	23.5	21.5	21.5	20.0	—	—
Grass	36.0	20.5	—	—	—	—	31.0	21.5	29.5	22.5	29.5	24.5	26.5	23.5	25.0	22.0	—	—	—	—

Minimum air temperature (°C) at 5 cms. above ground:

Lowest minimum temperature over dry soil ... ... 14.1 °C on 3rd.

" " " " wet soil ... ... 14.6 °C on 3rd. & 10th.

" " " " grass ... ... 12.0 °C on 3rd. & 10th.

* Values interpolated.

MONTHLY WEATHER REPORT

VOLUME 48 NUMBER 7

JULY 1957

MINISTRY OF WAR – METEOROLOGICAL DEPARTMENT
CAIRO – EGYPT

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CONTENTS

Note: Refer to volume 48 number 1 for the list of stations appearing in the report and for explanatory notes on the tables.

GENERAL SUMMARY OF WEATHER CONDITIONS

EGYPT—JULY 1957

Almost humid in the north, rather hot in the south

The main features were :

(1) Moderate to fresh N/NWly winds western part of the northern coast and Red Sea coast, light to moderate Nly winds elsewhere.

(2) Four consecutive heat waves Upper Egypt.

(3) High degree of moisture Lower Egypt.

General description of weather.

For the month as a whole, the weather was of the normal summer type, humid in the north, rather hot in the south where four consecutive heat waves prevailed.

The mean barometric pressure was generally above normal apart from Western Desert district. Mean maximum temperature was below normal in general, while mean minimum temperature was above normal Nile Valley and Delta, below normal elsewhere.

The mean daily relative humidity was 74.7% at Alexandria (Kom el Nadura), 59% at Giza and 47.5% at Helwan.

Pressure and wind.

The month started with high pressure extending from the British Isles SE wards towards Western Desert of Egypt together with west arm of the Iraq monsoon that extended slightly westwards, and caused a slight fall in the barometric pressure over Egypt up till the 3rd.

Between the 4th and 6th, the barometric pressure experienced a rapid rise, and high pressure extended eastwards and occupied Balkans.

From the 7th till the 23rd, the barometric pressure over Egypt oscillated three consecutive times during the following three periods respectively VIZ: (7th — 11th), (13th—15th) and (20th—23rd). The 1st oscillation was due to the appearance of a northern deep trough over Black Sea that caused a direct deepening and an appreciable westward extension of the Iraq monsoon. The second oscillation was due to the local deepening of the Iraq monsoon while stationary. The third oscillation occurred when a deep trough developed over the Balkans and shallow depressions developed over east Mediterranean loose pressure gradient area.

The subtropical high pressure belt established from the 24th till the end of the month and extended eastwards over Balkans and Asia Minor.

The prevailing winds were moderate to fresh Nly to NWly in the western parts of the Republic and Red Sea coast; but light to moderate Nly elsewhere.

Temperature.

Maximum temperature was slightly above normal in the west but almost round normal Lower and Middle Egypt. Over Upper Egypt four consecutive variant heat waves were experienced during the following four periods respectively : (8th–12th), (18th–19th), (22nd–26th) and (30th—31st).

Minimum temperature generally oscillated slightly round normal during the whole month.

Precipitation.

Drops of rain were reported at Damanhour on the 3rd, at Almaza and Siwa on the 4th.

Miscellaneous weather phenomena.

(1)Early morning fog patches developed at Mersa Matruh on the 9th, Cairo on the 10th, 17th and 18th and Almaza on the 17th.

Cairo on 9/6/1958.

M. F. Taha
Director General
Meteorological Department

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA

JULY 1957

District	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (°C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	10.5	—	11.0	+ 0.8	10.8	+ 0.9	10.9	+ 0.9	22.6	—	25.2	— 1.4	29.0	— 0.8	25.5	— 0.5	85	—	71	+ 5	60	+ 6	72	+ 6
	Sidi Barrani	10.1	—	10.7	+ 1.1	10.9	+ 1.3	10.7	+ 1.4	22.2	—	24.7	— 0.9	26.9	— 0.7	24.2	— 0.8	82	—	76	+ 1	69	+ 1	83	+ 4
	Mersa Matruh (A)	10.1	+ 0.9	10.6	+ 1.2	10.7	+ 1.3	10.7	+ 1.3	21.4	—	25.3	+ 0.2	27.7	+ 0.8	24.2	— 1.1	84	—	69	—11	61	—16	78	— 4
	Dabaa	9.8	—	11.0	—	9.2	—	9.2	—	22.5	—	25.6	— 0.4	28.2	— 0.1	24.7	— 0.3	85	—	69	— 3	58	— 2	77	— 1
	Alexandria (A)	8.8	+ 0.9	9.6	+ 1.3	9.4	+ 1.1	9.3	+ 1.1	23.7	+ 0.1	26.9	+ 0.3	29.4	+ 0.6	25.4	+ 0.4	81	— 3	68	— 3	61	— 3	75	— 4
	Kom el Nadura	9.5	—	10.0	+ 1.6	9.8	+ 1.5	9.8	+ 1.5	24.2	—	25.8	+ 0.2	27.9	— 0.5	25.0	0.0	78	—	72	— 4	66	— 1	77	— 3
	Dekheila (A)	9.4	—	9.8	—	9.7	—	9.2	—	23.1	—	25.6	—	28.0	—	24.6	—	86	—	74	—	67	—	81	—
	Damietta	9.1	—	9.5	+ 1.1	9.3	+ 1.5	9.0	+ 1.1	25.1	—	25.0	— 2.3	29.2	+ 0.1	26.2	+ 0.8	80	—	80	+ 7	58	— 5	74	— 9
	Port Said (A)	8·2	+ 1.3	8.9	+ 1.2	8.5	+ 1.4	8.4	+ 1.3	25·0	— 0.2	26.8	+ 0.1	28.5	— 0.6	26.2	— 0.3	77	— 2	70	— 3	66	+ 1	76	— 1
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	9.1	—	9.4	+ 0.3	9.4	+ 1.1	9.5	+ 1.2	22.4	—	25.4	— 1.6	30.7	— 0.7	25.0	— 0.2	84	—	79	+ 8	51	+ 1	78	+ 2
	Mansoura	9.0	—	9.4	+ 0.4	8.3	+ 0.5	8.8	+ 0.6	23.2	—	25.5	— 0.7	33.2	— 0.5	26.7	+ 0.1	71	—	74	+ 1	42	+ 3	65	— 3
	Tanta	8.6	—	9.1	+ 0.3	8.0	+ 0.4	8.5	+ 0.3	21.2	—	26.1	— 0.2	33.3	— 0.5	25.6	— 0.5	87	—	72	— 1	40	+ 1	69	+ 1
	Shebin el Kom	8·6	—	9.3	+ 0.5	7.8	+ 0.2	8.7	+ 0.5	22.3	—	25.3	— 0.9	32.6	— 1.7	26.8	— 0.7	87	—	74	+ 5	34	+ 2	62	+ 5
	Zagazig	8.2	—	9.2	0.0	8.1	+ 0.1	8.7	0.0	22.7	—	25.1	— 1.9	32.9	— 1.3	27.9	+ 0.4	70	—	75	+ 3	43	+ 3	62	— 2
	Zaher (A)	10.1	—	10.3	—	9.0	—	9.3	—	23.0	—	25.6	—	33.9	—	28.0	—	82	—	70	—	33	—	57	—
	Wadi el Natrun	8.8	—	10.0	+ 1.3	8.4	+ 1.4	9.3	+ 1.3	24.3	—	25.3	— 0.6	35.0	— 0.1	27.6	— 1.4	—	—	81	+10	42	+10	70	+19
	Abu-Sueir (A)	9.0	—	9.5	—	7.9	—	8.6	—	23.5	—	26.2	—	34.3	—	28.4	—	79	—	64	—	29	—	54	—
Cairo Area	Cairo (A)	8.6	+ 0.1	9.3	+ 0.6	7.6	+ 0.4	8.4	+ 1.1	22.9	— 0.6	25.0	— 0.1	33.5	— 0.7	28.8	— 1.1	79	+ 1	70	— 2	30	0	49	+ 4
	Almaza (A)	8.7	+ 0.6	9.2	+ 0.6	7.8	+ 0.8	8.1	+ 0.7	23.4	0.0	25.1	+ 0.3	33.8	+ 0.5	29.4	— 0.2	77	— 1	69	— 4	30	— 2	46	0
	Mostafa Helmi (A)	8.3	—	8.7	—	7.2	—	7.5	—	21.9	—	24.3	—	33.1	—	27.7	—	80	—	68	—	28	—	49	—
	Giza	8.7	—	9.8	+ 1.1	8.7	+ 1.6	8.5	+ 1.0	23.6	—	25.1	— 0.3	33.2	— 1.7	28.6	— 0.4	73	—	71	— 2	36	+ 5	49	+ 1
	Helwan	—	—	9.4	+ 0.6	7.4	+ 0.7	7.9	+ 0.7	—	—	25.3	+ 0.4	33.7	— 0.4	29.7	— 0.8	—	—	63	— 4	27	+ 3	41	+ 5
Upper Egypt	Fayoum	9.5	—	9.6	+ 0.6	7.9	+ 0.8	7.4	+ 0.4	24.1	—	27.1	+ 0.8	34.8	— 0.1	30.8	+ 0.4	—	—	58	— 6	27	+ 1	37	— 1
	Beni Suef	8.6	—	9.6	+ 1.2	8.0	+ 1.6	7.7	+ 1.3	—	—	26.8	— 0.8	35.5	— 1.0	30.2	0.0	—	—	60	— 1	26	0	39	— 1
	Minya (A)	7·1	+ 0.1	8.2	+ 0.2	7.0	+ 0.5	6.3	+ 0.4	23.2	+ 0.2	26.1	0.0	35.7	— 0.3	28.4	— 0.4	63	+ 1	63	— 1	24	0	44	— 5
	Asyoût (A)	7.1	—	8.7	+ 0.8	7.0	+ 0.9	6.6	+ 0.8	26.0	—	26.3	— 1.4	35.3	— 0.6	30.6	— 0.4	40	—	54	+ 4	22	— 1	30	— 2
	Nag Hammadi	6.3	—	7.6	+ 0.5	6.2	+ 0.8	6.0	+ 0.6	25.9	—	26.8	— 2.0	36.5	— 0.1	29.5	+ 0.2	54	—	57	+10	28	+ 2	47	+ 4
	Qena	6.3	—	7.2	+ 0.5	5.6	+ 1.0	5.5	+ 0.9	25.1	—	29.9	— 0.6	37.1	— 2.8	31.6	— 1.5	43	—	43	+ 6	26	+ 7	33	+ 5
	Luxor (A)	5.1	+ 0.8	6.4	+ 0.8	4.6	+ 1.0	4.3	+ 0.5	28.0	+ 0.6	32.6	— 0.2	39.7	0.0	33.5	— 0.3	35	+ 4	33	+ 5	20	+ 5	28	+ 6
	Aswan	5.3	—	6.8	0.0	4.3	0.0	4.3	— 0.3	28.8	—	33.2	+ 1.4	40.9	+ 0.5	35.6	— 0.3	28	—	28	— 1	15	— 2	17	— 2
Western Desert	Siwa	10.0	+ 0.5	11·4	+ 0.6	9.9	+ 0.7	8.7	+ 0.6	24.5	— 0.6	24.5	— 1.0	35.3	— 0.4	32.2	— 1.0	48	0	57	— 2	17	— 4	24	— 2
	Bahariya	9.3	—	10.1	— 0.3	8.4	+ 0.1	8.2	— 0.1	24.0	—	26.0	+ 0.1	35.7	+ 0.4	31.1	+ 0.6	56	—	57	— 1	20	— 8	27	— 9
	Farafra	9.9	—	11.4	—	9.4	—	9.1	—	24.6	—	27.2	—	36.2	—	31.4	—	26	—	30	—	14	—	17	—
	Dakhla	8.1	—	8.6	— 0.4	7.4	+ 0.3	6.9	— 0.6	26.5	—	29.9	+ 0.5	37.9	+ 0.9	33.3	+ 0.6	39	—	37	+ 7	22	+ 4	28	+ 8
	Kharga	5.7	—	6.8	— 1.4	5.3	— 1.3	5.0	— 1.6	25.9	—	29.9	0.0	37.9	— 0.5	32.5	— 0.8	31	—	35	— 7	18	— 8	20	—11
Red Sea	Suez	9.5	—	10.0	+ 1.8	8.0	+ 0.1	8.4	+ 1.3	25.7	—	26.4	— 0.2	34.5	— 0.1	30.4	+ 0.7	70	—	68	0	34	0	49	— 3
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	4.5	—	5.9	+ 0·8	5.4	+ 1.8	4.1	+ 0.9	27.6	—	30.1	+ 1.5	32.5	— 1.6	30.0	+ 0.2	45	—	47	—13	46	—12	48	— 4
	Quseir	—	—	6.1	+ 0.5	5.7	+ 0.3	5.3	+ 0.3	—	—	30.9	— 0.3	31.8	0.0	30.2	+ 0.5	—	—	50	+ 2	56	— 3	53	— 4

TABLE A 2.—SURFACE CLIMATOLOGICAL DATA

JULY 1957

District	Station	Air Temperature (°C)													Rainfall in Millimetres						Mean Evaporation Piche (mms)
		Mean Max.		Mean Min.		Daily Mean A+B / 2	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No. of days with amount of rain			
		Mean (A)	Dev. from Normal	Mean (B)	Dev. from Normal		Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				0.1	≥ 1.0	≥ 10.0	
Mediterranean	Sallum	29.9	—1.6	21.4	+0.8	25.6	34.0	12.21	26.7	1	18.7	8	23.0	10	0	0	—	0	0	0	8.8
	Sidi Barrani	27.5	—1.1	21·1	—0·9	24.3	28.4	15.29	26.3	1	16.9	7	23.4	15	0	0	—	0	0	0	6.5
	Marsa Matruh (A)	28.4	—0.9	19.7	—0.6	24.0	31.5	21	27.4	5	16.1	6	22.6	14	0	0	—	0	0	0	—
	Dabaa	29.1	—0.4	20.4	—0.5	24.8	30.6	10.11	27.6	4	16.9	31	23.0	15	0	0	—	0	0	0	7.1
	Alexandria (A)	29.8	+0.3	22·7	0.0	26.2	31.8	11	27.9	2	17.9	30	25.0	15	0	0	—	0	0	0	5.2
	Kom el Nadura	29.1	—0.4	23.2	—0.1	26.2	30.2	17	27.2	2	21.8	3	24.2	15	0	0	—	0	0	0	5.3
	Dekheila (A)	28.5	—	22·2	—	25.4	29.8	15	27.2	1	17.4	30	24.2	15	0	0	—	0	0	0	6.5
	Damiette	29.7	—1.9	20.4	—0.9	25.0	32.7	18	27.4	2	18.3	30	23.8	13	0	0	—	0	0	0	4.0
	Port Said (A)	30.8	+0.5	23.8	—0.4	27.3	34.0	10	29.0	1·4.6	22.0	3	25.4	17	0	0	—	0	0	0	5.4
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	31.5	—1.1	20·1	0.0	25.8	34.8	17	29.4	2	17.6	30	21.7	22	tr	tr	3	0	0	0	5.0
	Mansoura	33.8	—1.1	20.8	+0.2	27.3	36.3	17	30.5	2	19.0	30	22.5	28	0	0	—	0	0	0	3.8
	Tanta	34.0	—0.5	20.0	+1.0	27.1	36.0	17	32.4	5	16.5	30	22.4	8	0	0	—	0	0	0	6.5
	Shebin el Kom	33.7	—1·9	21.4	+0.8	27.6	36.3	8	30.6	2	18.7	30	22.8	22	0	0	—	0	0	0	5.9
	Zagazig	33.6	—1.4	20.1	+0.2	26.8	36.2	10	30.5	2	18.0	31	21.8	8.9	0	0	—	0	0	0	5.4
	Zaher (A)	34.4	—	21.8	—	28.1	37.4	9	31.8	2	20.0	26	23.2	8	0	0	—	0	0	0	12.3
	Wadi el Natrun	35.9	—0·5	20.8	+0.2	28.4	38.8	9	32.4	2	18.9	30	23.4	17	0	0	—	0	0	0	9.6
	Abu Sueir (A)	35.1	—	22.0	—	28.6	39.0	8.18	32.2	3	20.5	29	24.0	8	0	0		0	0	0	14.1
Cairo Area	Cairo (A)	34.8	—0.9	21.4	—0.2	28.1	37.8	8	32.0	3	20.0	24.26	23.6	12	0	0	—	0	0	0	12.3
	Almaza (A)	35·1	—0.5	21.8	0.0	28.4	38.0	8.9	32.6	3	20.2	24	24.2	9	tr.	tr.	4	0	0	0	9.7
	Mostafa Helmi (A)	34.2	—	20.4	—	27.3	37.4	9	31.5	2	18.8	21	21.8	28	0	0	—	0	0	0	20.5
	Giza	34.6	—1.1	20.9	+1·1	27.8	37.8	8	31.9	3	18.8	12	22.8	8	0	0	—	0	0	0	[illegible]
	Helwan	34.8	—0.7	21.7	+0.4	28.2	38.2	8	31.4	3	20.7	24.29	23.4	5	0	0	—	0	0	0	13.4
Upper Egypt	Fayoum	36.5	—0.1	21.5	+0.3	29.0	39.6	9	28.8	4	20.2	26.30	22.8	16.17	0	0	—	0	0	0	9.6
	Beni Suef	36.5	—0.4	20·3	+0·2	28.4	39.5	17	34.2	2	18.8	30	22.4	16	0	0	—	0	0	0	9.2
	Minya (A)	36.4	—0.6	20·6	+0.4	28.5	40.2	11	33.2	3	18.0	1	22.8	17	0	0	—	0	0	0	13.2
	Asyoût (A)	36.4	—0·8	22.9	+0.5	29.6	39.4	10	34.0	3	21.0	26	25.5	12	0	0	—	0	0	0	19.0
	Nag Hammadi	37.8	+0.3	21.5	+0.8	29.6	41.6	10	35.0	27	20.0	22.31	23.2	7	0	0	—	0	0	0	8.2
	Qena	38.7	—2.2	23.4	—0.8	31.0	42.3	18	35.3	3·4	20.6	5	25.4	19.31	0	0	—	0	0	0	13.1
	Luxor (A)	40.7	—0·2	24.3	+0.5	32.5	44.1	18	37.3	15	22.0	5	26.2	8	0	0	—	0	0	0	17.8
	Aswan	42.7	+1.3	25.6	0.0	34.2	46.4	25.31	40.5	3	22.7	2	28.8	27	0	0	—	0	0	0	17.2
Western Desert	Siwa	36.9	—0·9	20.8	—0.7	28.8	39.7	30	32.0	2	18.2	8	22.6	20.22	tr.	tr.	4	0	0	0	16.0
	Bahariya	36.6	—0·1	20·4	+0.1	28.5	39.1	8	32.6	3	18.0	1	22.4	18	0	0	—	0	0	0	11.1
	Farafra	37.3	—0.2	21·3	+0.6	29.3	39.0	22	34.8	4.5	18.5	3	23.8	2	0	0	—	0	0	0	22.1
	Dakhla	38.9	+0·5	21·9	—1.5	30.4	42.1	22	35.8	3	18.2	11.27·30	27.3	18.25	0	0	—	0	0	0	23.4
	Kharga	38.5	—0.8	22.7	—0.8	30.6	41.0	10	35.6	3	18.6	29	27.2	9	0	0	—	0	0	0	16.4
Red Sea	Suez	36.1	—0·3	21.7	—1.0	28.9	38.9	18	33.4	1.2	20.1	25	23.6	19	0	0	—	0	0	0	14.8
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurgada	34.1	+1.3	25.2	+0.2	29.6	37.5	10.11	32.0	6.16	22.2	1	27.1	30	0	0	—	0	0	0	22.4
	Quseir	32.8	—0·7	25.8	—0.6	29.3	34.1	31	30.4	3	23.8	7	29.1	27	0	0	—	0	0	0	18.3

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

JULY 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandrising or Dustrising	Duststorms or Sandstorms	Gales
Sallum	0	0	0	0	0	0	0	0
Sidi Barrani	0	0	0	0	0	0	0	0
Mersa Matruh (A)	0	0	0	0	1	1	0	0
Alexandria (A)	0	0	0	0	0	0	0	0
Port Said (A)	0	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	0	0	0	0	0	0	0	0
Cairo (A)	0	0	0	0	3	0	0	0
Almaza (A)	0	0	0	0	1	1	0	0
Mostafa Helmi (A)	0	0	0	0	0	0	0	0
Minya (A)	0	0	0	0	0	0	0	0
Asyoût (A)	0	0	0	0	0	0	0	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan	0	0	0	0	0	0	0	0
Siwa...	0	0	0	0	0	0	0	0
Hurghada	0	0	0	0	0	0	0	0
Quseir	0	0	0	0	0	0	0	0

TABLE A 4.—NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

JULY 1957

STATION	Calm	Variable	Unrecorded	Wind Speed in Knots	Number of Occurrences of wind blowing from the ranges of directions indicated in degrees from the north												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	
Sidi Barrani	28	10	11	1–10	49	14	12	—	—	1	5	—	14	11	22	62	190
				11–27	125	23	3	—	—	—	—	—	4	—	69	281	505
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**174**	**37**	**15**	—	—	**1**	**5**	—	**18**	**11**	**91**	**343**	**695**
Mersa Matruh (A)	18	2	0	1–10	20	3	2	—	—	—	—	1	44	123	52	73	318
				11–27	21	5	—	—	—	—	—	—	3	5	133	239	406
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**41**	**8**	**2**	—	—	—	—	**1**	**47**	**128**	**185**	**312**	**724**
Alexandria (A)	10	26	1	1–10	127	20	13	3	—	2	—	—	4	7	70	228	474
				11–27	35	7	—	—	—	—	—	—	—	—	35	156	233
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**162**	**27**	**13**	**3**	—	**2**	—	—	**4**	**7**	**105**	**384**	**707**
Port-Said (A)	0	2	0	1–10	129	29	16	8	4	1	—	1	15	70	65	186	524
				11–27	55	14	4	—	—	—	—	—	6	23	24	92	218
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**184**	**43**	**20**	**8**	**4**	**1**	—	**1**	**21**	**93**	**89**	**278**	**742**
Cairo (A)	5	12	15	1–10	205	166	33	4	3	—	—	1	—	16	91	164	683
				11–27	17	3	3	—	—	—	—	—	—	—	—	6	29
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**222**	**169**	**36**	**4**	**3**	—	—	**1**	—	**16**	**91**	**170**	**712**
Almaza (A)	1	0	1	1–10	174	143	6	2	4	—	1	2	7	31	97	140	607
				11–27	80	34	—	—	—	—	—	—	—	2	1	18	135
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**254**	**177**	**6**	**2**	**4**	—	**1**	**2**	**7**	**33**	**98**	**158**	**742**
Minya (A)	35	66	41	1–10	306	49	—	—	—	—	—	1	1	7	3	35	402
				11–27	162	31	—	1	—	—	—	—	—	—	—	6	200
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**468**	**80**	—	**1**	—	—	—	**1**	**1**	**7**	**3**	**41**	**602**
Luxor (A)	27	61	0	1–10	2	5	2	11	16	66	81	78	70	73	122	94	620
				11–27	—	—	—	—	—	—	—	2	2	3	20	9	36
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**2**	**5**	**2**	**11**	**16**	**66**	**81**	**80**	**72**	**76**	**142**	**103**	**656**
Siwa	30	48	9	1–10	97	74	96	57	14	9	2	3	4	16	36	101	509
				11–27	47	34	17	1	—	—	—	—	—	—	10	39	148
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**144**	**108**	**113**	**58**	**14**	**9**	**2**	**3**	**4**	**16**	**46**	**140**	**657**
Hurghada	4	11	11	1–10	23	21	14	5	8	21	3	2	—	10	54	38	199
				11–27	88	12	—	—	—	1	—	—	—	20	121	259	499
				28–47	—	—	—	—	—	—	—	—	1	—	1	18	20
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**109**	**33**	**14**	**5**	**8**	**22**	**3**	**2**	**1**	**30**	**176**	**315**	**718**

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A) — 0000 U.T. — JULY 1957.

Pressure Surface (Millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 UT.		Highest	Lowest	obs. at 0000 U.T		Highest	Lowest	obs. at 0000 U.T	
	N	Mean			N	Mean			N	Mean
Surface	29	1002 mb	1006 mb	998 mb	29	24.1	26.0	22.4	29	18.2
1000	27	91	114	70	27	23.8	26.0	22.2	26	18.0
850	29	1489	1523	1458	29	17.4	22.2	10.4	21	4.6
700	29	3120	3176	3050	29	9·5	15.2	— 2.7	8	— 5.0
600	29	4386	4450	4274	29	3·5	6.8	— 5.0	2	—15.2
500	29	5843	5900	5684	29	— 4.4	0.0	—13.4	2	—20.8
400	29	7572	7632	7360	29	—14.6	—10.5	—19.7	—	—
300	29	9690	9783	9605	29	—28.7	—25.7	—31.9	—	—
200	27	12489	12593	12160	27	—48.8	—44.0	—55.5	—	—
150	21	14309	14518	13999	21	—62.2	—57.0	—65.8	—	—
100	5	16693	16803	16404	5	—73.9	—71.7	—76.0	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N=Number of observations of specified pressure surfaces.

CAIRO (A) — 1200 U.T. — JULY 1957.

Pressure Surface (Millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 UT.		Highest	Lowest	abs. at 1200U.T		Highest	Lowest	obs. at 1200 U.T	
	N	Mean			N	Mean			N	Mean
Surface	27	1001	1005mb	998mb	27	33.9	36.4	30.8	27	15.3
1000	22	90	115	70	22	32.6	36.2	30.3	22	15.7
850	27	1509	1540	1449	27	21.3	25.1	17.0	19	12.6
700	27	3153	3191	3091	27	11.8	16.8	4.6	8	— 8.0
600	26	4428	4488	4369	26	6.4	9.2	1.4	2	— 7·0
500	26	5898	5964	5828	26	— 1.4	2.8	— 7.4	—	—
400	26	7643	7712	7554	26	—11.8	— 6.8	—15.2	—	—
300	26	9786	9883	9684	26	—26.0	—19.6	—31.0	—	—
200	24	12593	12765	12482	24	—45.5	—37.7	—50.0	—	—
150	21	14445	14586	14087	21	—58.7	—50.8	—62.5	—	—
100	15	16859	17111	16509	15	—71.3	—60.5	—75.8	—	—
60	8	19927	20050	19795	8	—61.7	—60.0	—67.0	—	—
40	7	22522	22635	22325	7	—50.3	—48.5	—54.5	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N = Number of observations of specified pressure surfaces.

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

MERSA MATRUH (A) — 0000 U.T. — JULY 1957

Pressure Surface (millibar)	Heights of Pressure Surfaces (gpm.)				Temperature (°C)				Dew point (°C)	
	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.	
	N.	Mean			N.	Mean			N.	Mean
Surface	18	1008mb.	1010mb.	1006mb.	18	21.8	24.5	19.6	18	19.2
1000	18	99	125	82	18	21.6	23.8	19.7	18	18.8
850	18	1503	1529	1465	18	17.8	23.2	12.1	12	1.4
700	18	3144	3251	3068	18	9.8	14.6	2.2	4	— 4.3
600	18	4408	4520	4310	18	1.8	6.8	— 5.4	—	—
500	17	5870	5989	5730	17	— 1.6	— 0.1	—13.0	—	—
400	17	7588	7714	7398	17	—16.0	—13.2	—22.7	—	—
300	17	9697	9807	9468	17	—30.2	—27.5	—38.2	—	—
200	16	12458	12608	12203	16	—49.8	—45.3	—61.0	—	—
150	15	14281	14447	14022	15	—62.2	—58.0	—70.5	—	—
100	7	16745	16887	16584	7	—71.3	—67.4	—73.8	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N=Number of observations ot specified pressure surfaces.

MERSA MATRUH (A) — 1200 U.T. — JULY 1957

Pressure Surface (millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.	
	N.	Mean			N.	Mean			N.	Mean
Surface	22	1008mb.	1012mb.	1004mb.	22	27.2	28.6	25.8	22	20.4
1000	22	107	135	65	22	26.3	28.1	24.1	19	19.1
850	21	1519	1551	1485	20	18.5	22.0	14.0	14	— 1.5
700	22	3152	3179	3095	21	11.1	21.2	4.1	4	— 5·6
600	22	4419	4470	4336	21	4.7	11.5	— 3.3	—	—
500	22	5883	5960	5767	21	— 4.6	2.0	—10.9	—	—
400	21	7610	7718	7447	21	—14.8	—10.1	—22.6	—	—
300	21	9730	9880	9535	21	—28.2	—23 4	—33.2	—	—
200	21	12517	12716	12338	20	—52.0	—43.3	—58.9	—	—
150	20	14355	14497	14193	20	—60.5	—57.5	—65.1	—	—
100	19	16792	17040	16586	19	—72.5	—65.5	—77.5	—	—
60	18	19834	20150	19696	18	—63.4	—46.9	—76.5	—	—
40	16	22292	22779	22217	16	—57.0	—48.0	—62.6	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N.=Number of observations of specified pressure surfaces.

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

ASWAN — 0000 U.T. — JULY 1957.

Pressure Surface (millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 U.T		Highest	Lowest	obs. at 0000 U.T		Highest	Lowest	obs. at 0000 U.T	
	N	Mean			N	Mean			N	Mean
Surface	19	992 mb	996 mb	990 mb	19	29·2	32·6	27,0	19	8,7
1000	—	—	—	—	—	—	—	—	—	—
850	19	1508	1530	1481	19	22·4	28·0	16·2	19	4,2
700	19	3155	3202	3111	19	9·4	14·0	4·9	15	— 3.0
600	19	4421	4480	4359	19	3·3	7·9	— 4·2	5	— 8.3
500	19	5882	5939	5801	19	— 4·2	— 0·3	— 7·1	3	—15.3
400	19	7607	7655	7502	19	—14·5	—11·6	—18·7	—	—
300	19	9725	9824	9589	19	—27·0	—25·8	—33·0	—	—
200	18	12499	12600	12325	18	—50·2	—46·2	—53·6	—	—
150	15	14332	14441	14139	15	—63·2	—58·0	—66·4	—	—
100	7	16774	16895	16658	7	—74·8	—69·3	—78·9	—	...
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N=Number of observations of specified pressure surfaces.

ASWAN — 1200 U.T. — JULY 1957

Pressure Surface (millibar)	Heights of pressure surfaces (gpm,)				Temperature (°C)				Dew Point (°C)	
	obs, at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	19	992	996	990	19	39.0	45.5	38.0	19	5.0
1000	—	—	—	—	—	—	—	—	—	—
850	19	1541	1558	1525	19	27.6	33.3	23.1	19	3.7
700	19	3213	3256	3179	19	13.4	18.6	8.8	19	— 1.6
600	19	4494	4553	4460	19	6.8	11.6	4.0	6	— 6.8
500	19	5968	6025	5927	19	— 4.7	2.3	— 5.8	4	—14.6
400	19	7734	7796	7669	19	—10.3	— 8.0	—16.2	—	—
300	19	9868	9962	9812	19	—25.7	—22.8	—31.4	—	—
200	19	12688	12803	12574	19	—44.7	—43.0	—52.8	—	—
150	19	14519	14668	14381	19	—60.6	—44.7	—65.0	—	—
100	18	16955	17182	16803	18	—74.0	—68.2	—77.6	—	—
60	16	19965	20179	19791	16	—66.0	—60.6	—70.1	—	—
40	14	22475	22666	22250	14	—57.4	—52.5	—62.3	—	—
30	11	24255	24467	24055	11	—54.5	—51.4	—58.8	—	—
20	4	26763	26879	26569	4	—48.1	—46.9	—49.6	—	—
10	—	—	—	—	—	—	—	—	—	—

N=Number of observations of specified pressure surfaces.

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

0000 U.T.—JULY 1957

STATION	Time of obs. U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm. (N)	Pressure mb. (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Direction 000-360	Speed in knots
Cairo (A)	0000	4925	561	— 7.3	5940	497	—	2620	726	0.0	12060	212	—59.4	13550	168	—60.0	10570	257	—58·8	11100	266	230	90
		(29)	(29)	(5)							(2)	(2)	(2)										
Mersa Matruh (A)	0000	5099	553	— 7.4	5980	495	—	3400	674	— 2.3	14631	142	—66.0	16030	114	—72.9	12850	182	—62·9	14000	158	190	55
		(18)	(18)	(2)							(10)	(10)	(10)										
Aswan	0000	5064	555	— 7.9	5890	504	—	4010	628	—	16950	99	—75.6	19100	68	—81·1	15330	125	—70.0	—	—	—	—
		(19)	(19)	(3)							(3)	(3)	(3)										

N = Total number of observations.

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

1200 U.T.—JULY 1957

STATION	Time of obs. U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb, (N)	Dew point °C (N)	Height gpm,	Pressure mb	Dew point °C	Height gpm	Pressure mb.	Dew point °C	Height gp m, (N)	Pressure mb. (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Direction (000-360)	Speed in knots
Cairo (A)	1200	5653	515	—	6730	452	—	4650	578	—	16386	110	—70.0	17600	90	—78.5	15100	135	—66.9	8900	334	250	88
		(26)	(26)								(13)	(13)	(13)										
Mersa Matruh (A)	1200	5260	539	—	6340	478	—	3690	650	— 7.9	16199	114	—70.4	19260	68	—80.5	13060	180	—55.0	11650	223	260	78
		(21)	(21)								(20)	(20)	(20)										
Aswan	1200	5808	511	—11.0	6770	458	—	5260	548	— 8.4	17204	95	—75.7	18400	80	—75.7	15750	119	—74.1	15360	153	130	74
		(19)	(19)	(5)							(18)	(18)	(18)										

N — Total number of observations.

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

CAIRO (A)—0000 U.T.—JULY 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000–360)																						Calm	Total Number of observations (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			
Surface	4	3	7	4	4	7	—	—	—	—	—	—	—	—	—	—	—	—	2	1	2	3	4	2	6	29	3
1000	5	3	7	5	3	6	—	—	—	—	—	—	—	—	—	—	—	—	2	6	1	3	4	2	5	27	3
850	7	9	5	12	2	4	—	—	2	8	—	—	—	—	1	13	—	—	2	14	4	16	3	14	1	27	11
700	2	7	5	9	—	—	—	—	—	—	1	21	4	18	3	10	3	18	3	16	1	12	3	14	2	27	12
600	4	11	1	6	—	—	—	—	—	—	1	19	4	16	4	16	—	—	2	14	7	12	2	10	2	27	12
500	2	25	—	—	—	—	1	9	—	—	2	12	4	17	1	33	6	17	4	11	2	16	4	8	—	26	15
400	2	21	1	6	1	9	1	12	1	10	—	—	2	21	4	30	2	49	6	13	2	24	—	—	—	22	21
300	2	4	—	—	—	—	—	—	2	14	1	11	2	20	2	41	3	46	6	18	2	13	2	21	—	22	22
200	1	5	—	—	—	—	—	—	—	—	3	24	2	21	3	31	5	42	1	8	2	20	—	—	1	18	25
150	—	—	—	—	—	—	—	—	—	—	3	30	2	10	3	30	1	56	3	21	—	—	—	—	—	12	27
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

CAIRO—1200 U.T.—JULY 1957.

Pressure Surfaces (mb.)	Wind between specified ranges of Direction (000–360)																						Calm	Total number of observations 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)$_m$			
Surface ...	10	8	2	10	1	2	1	5	—	—	—	—	—	—	—	—	—	—	3	5	3	10	9	9	—	29	8
1000	11	9	1	15	—	—	1	5	—	—	—	—	—	—	—	—	—	—	2	12	2	7	7	8	—	24	9
850	3	5	7	9	—	—	—	—	—	—	2	7	—	—	—	—	1	1	3	7	6	15	7	12	—	29	10
700	4	8	2	5	2	7	—	—	—	—	1	20	2	27	5	18	3	11	6	14	1	2	3	13	—	29	13
600	1	8	5	13	1	4	1	8	1	15	—	—	1	24	4	26	6	10	2	25	3	1	2	17	1	28	14
500	3	12	—	—	—	—	1	2	1	17	1	4	1	29	4	15	5	19	6	20	3	12	3	15	—	28	16
400	2	17	1	8	—	—	1	17	2	6	2	13	2	14	1	9	5	21	6	21	5	17	1	4	—	28	16
300	1	52	—	—	1	5	1	17	1	11	2	19	4	11	3	16	3	46	7	23	3	22	2	9	—	28	21
200	2	6	—	—	—	—	1	17	—	—	1	36	1	46	2	18	1	29	2	26	2	18	3	18	1	16	20
150	—	—	—	—	1	14	—	—	2	18	1	44	—	—	2	40	1	19	1	36	3	15	—	—	1	12	23
100	1	13	—	—	—	—	—	—	—	—	1	20	1	42	—	—	—	—	1	21	—	—	—	—	—	4	24
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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).—0000 U.T.– JULY 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of observations (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			
Surface ...	1	13	—	—	—	—	—	—	1	10	—	—	—	—	—	—	2	7	6	7	3	10	4	10	1	18	8
1000	1	8	3	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	12	5	10	2	15	10
850	2	29	—	—	4	15	—	—	—	—	—	—	—	—	—	—	—	—	2	16	2	12	3	10	2	15	14
700	2	9	1	20	2	18	—	—	—	—	—	—	—	—	—	—	1	12	1	8	4	16	4	13	—	15	14
600	2	12	1	10	—	—	1	17	—	—	1	15	—	—	1	15	3	6	2	9	—	—	4	22	—	15	14
500	—	—	2	15	—	—	—	—	1	12	—	—	1	10	—	—	2	10	4	18	2	15	3	11	—	15	14
400	3	14	—	—	1	10	—	—	—	—	—	—	—	—	2	13	4	17	3	10	2	16	—	—	—	15	14
300	1	34	—	—	1	12	1	6	—	—	—	—	—	—	4	18	3	21	2	20	1	8	2	23	—	15	19
200	1	16	—	—	—	—	—	—	—	—	1	20	2	31	3	25	3	39	2	15	—	—	1	36	—	13	27
150	2	13	—	—	—	—	—	—	—	—	1	15	4	29	—	—	3	34	—	—	1	34	1	33	—	12	27
100	1	18	—	—	—	—	—	—	—	—	—	—	1	20	—	—	1	26	—	—	—	—	—	—	—	3	21
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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)—1200 U.T.—JULY 1957.

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total number of observations (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	$(ff)_m$			
Surface ...	3	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	16	16	16	—	21	15
1000	1	12	3	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	19	15	14	—	21	15
850	2	10	1	17	1	13	—	—	—	—	—	—	—	—	—	—	1	8	3	13	4	13	9	13	—	21	13
700	2	15	1	11	2	17	—	—	1	4	—	—	1	10	1	14	1	7	2	6	5	8	5	16	—	21	12
600	4	16	—	—	1	11	1	8	—	—	1	8	1	4	2	15	2	16	3	12	3	5	3	12	—	21	12
500	3	9	—	—	—	—	1	20	—	—	—	—	—	—	3	19	3	13	6	11	2	21	3	19	—	21	15
400	—	—	—	—	1	11	1	7	—	—	—	—	1	20	1	23	5	19	5	16	2	25	4	19	—	20	18
300	—	—	—	—	—	—	1	13	—	—	1	20	1	19	2	21	9	27	1	28	3	43	1	5	—	19	26
200	—	—	—	—	—	—	1	18	1	10	1	30	2	15	3	26	7	27	1	54	1	50	—	—	—	17	27
150	—	—	—	—	—	—	1	21	2	22	2	25	3	15	3	26	2	27	—	—	—	—	—	—	—	13	22
100	—	—	—	—	—	—	1	25	4	27	1	10	3	18	2	26	1	38	1	10	—	—	—	—	—	13	22
60	—	—	—	—	1	17	3	26	2	26	2	27	—	—	—	—	—	—	—	—	—	—	—	—	—	8	25
40	—	—	—	—	—	—	4	28	—	—	1	27	—	—	—	—	—	—	—	—	1	18	—	—	—	6	26
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	-	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

ASWAN 1200 U.T. — JULY 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of Observations (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)$_m$			
Surface ...	3	5	1	9	—	—	—	—	—	—	—	—	—	—	3	8	1	10	—	—	3	7	—	—	8	19	4
1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
850	—	—	—	—	1	5	—	—	—	—	—	—	2	10	3	17	—	—	6	10	3	10	4	8	—	19	10
700	—	—	—	—	—	—	1	8	1	9	—	—	1	17	5	20	3	16	6	12	1	26	1	10	—	19	15
600	—	—	—	—	—	—	—	—	1	15	2	6	4	13	6	13	3	13	—	—	1	14	2	7	—	19	12
500	2	9	—	—	1	17	1	5	2	6	2	8	5	16	5	7	—	—	1	8	—	—	—	—	—	19	10
400	—	—	2	16	3	8	2	24	6	16	2	15	—	—	1	13	—	—	2	9	1	10	—	—	—	19	14
300	—	—	2	8	1	42	5	18	4	14	2	9	1	16	—	—	—	—	2	12	—	—	2	10	—	19	15
200	—	—	—	—	1	16	5	21	7	25	3	21	—	—	—	—	—	—	—	—	—	—	1	11	—	17	21
150	—	—	1	10	—	—	7	27	6	33	2	28	—	—	—	—	—	—	—	—	—	—	1	17	—	17	28
100	—	—	—	—	—	—	6	41	8	36	—	—	—	—	—	—	—	—	—	—	—	—	1	29	—	15	38
60	—	—	—	—	—	—	9	44	3	44	—	—	—	—	—	—	—	—	—	—	—	—	1	29	—	13	43
40	—	—	—	—	—	—	9	39	3	46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	41
30	1	50	—	—	—	—	7	44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	45
20	—	—	—	—	—	—	2	37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	37
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGROMETEOROLOGICAL STATION AT GIZA

JULY 1957

Mean air temperature, relative and absolute humidity of this month were about normal, practically the same as July 1956. No outstanding heat wave occurred this month. The extreme maximum was 37.8°C against 42.1°C for last July. Maximum soil temperature at 0.3 cm. in dry field was 3.5°C less than last year. Mean wind at 2 meters was slightly more than last year. Total sunshine duration was practically the same as July 1956, while total sun and sky radiation was about 1800 calories/cm^2 more.

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METERS ABOVE THE GROUND

GIZA—JULY 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed meters per second		
	Max.	Min.	Mean * of the day	Day time mean	Night time mean	>90%	>80%	Relative %	Vapour pressur (mms.)	Mean of the day	Day time mean	Night time mean
1	33·0	20.0	26.7	29	25	0	2	36	12.8	2.6	3.1	2.3
2	32.1	19.9	25.4	28	24	0	4	44	13.9	2.7	3.3	2.4
3	31.9	20.1	26.3	28	24	0	2	35	11.9	2.0	2.9	1.4
4	35.1	20.0	27.2	30	24	0	5	33	12.8	1.9	2.0	1.9
5	33.5	21.1	27.0	29	25	0	5	43	16.1	3.1	3.8	2.7
6	34.1	22.0	26.9	29	25	0	7	37	13.7	3.1	3.2	3.0
7	34.4	22.1	27.3	29	24	0	7	34	12.9	2.6	3.1	2.2
8	37.8	22.8	28.4	31	25	0	9	24	11.0	2.9	3.6	2.4
9	37.6	22.0	28.1	30	25	0	8	35	15.6	2.5	3.1	2.2
10	37.3	21.5	28.2	31	26	3	8	24	10.5	2.5	2.8	2.2
11	37.5	19.3	27.5	31	25	0	5	30	12.4	2.0	3.1	1.2
12	36.8	18.8	28.1	31	25	0	2	23	10.2	1.8	3.0	1·0
13	35.4	22.5	27.4	30	26	0	8	36	14.1	2.4	3.4	1.8
14	34.8	21.6	27.0	29	25	0	6	37	14.4	2.8	4.1	1.9
15	34.1	19.5	26.7	28	24	0	7	38	14.4	2.1	3.6	1.1
16	34.6	22.6	28.3	30	25	6	8	40	15.5	2.7	3.1	2.3
17	36.8	21.1	27.9	31	26	4	5	27	11.9	2.7	3.6	2.1
18	36.3	21.0	28.3	31	26	1	6	26	11.2	2.5	2.7	2.3
19	35.2	20.7	27.1	30	26	1	4	33	13.4	2.3	2.6	2.0
20	33.7	22.0	26.5	28	25	0	4	41	15.2	2.6	3.0	2.3
21	34.4	20.6	26.6	29	24	0	7	32	12.2	2.4	3.4	1.6
22	35.1	21.7	27.3	30	25	0	6	37	14.6	1.9	2.6	1.4
23	33.9	22.2	27.1	29	25	0	8	40	14.8	2.5	3.1	2.1
24	34.0	19.9	26.4	28	24	0	6	38	14.3	3.3	4.3	2.7
25	34.0	20.9	26.7	29	24	3	8	42	16.0	2.7	3·1	2.3
26	33.1	19.6	25.7	28	23	0	7	42	15.0	2.4	3.3	1.8
27	32.5	22.2	26.4	28	24	0	7	46	15.8	2.5	3.2	2.0
28	33.5	22.0	26.6	29	24	0	6	38	13.8	2.2	2.8	1.9
29	32.8	19.3	25.5	28	23	3	9	37	12.4	1.9	2.5	1.5
30	32.9	19.2	25.7	28	24	0	7	34	11.8	2.6	3.2	2.2
31	33.7	19.6	26.0	28	24	4	7	41	14.7	2.8	4.0	2.0
Mean	34.6	20.9	27.0	29	25	—	—	36	13.5	2.5	3.2	2.0
Highest	37.8	—	—	—	—	—	—	—	16.1	—	—	—
Date	8	—	—	—	—	—	—	—	5	—	—	—
Lowest...	—	18.8	—	—	—	—	—	23	10.2	—	—	—
Date	—	12	—	—	—	—	—	12	12	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+\text{Min}}{4}$

Humidity at 2 metres above ground :

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 62%

Lowest relative humidity ... ... 18% on ... ... 10th. and 11th.

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 15.3 mms.

Highest value of vapour pressure ... ... 19.8 mms. on ... ... 16th.

Lowest value of vapour pressure ... ... 9.0 mms. on ... ... 11th.

TABLE C 2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES.

GIZA—JULY 1957.

DATE	Piche evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 meters height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	17	0	776	12.3	24	24	24	24	24	17	8	0	0
2	16	0	750	11.9	24	24	24	24	24	14	5	0	0
3	16	0	820	11.7	24	24	24	24	24	14	6	0	0
4	16	0	676	11.2	24	24	24	24	24	16	9	0	0
5	17	0	777	12.2	24	24	24	24	24	16	8	0	0
6	17	0	765	12.2	24	24	24	24	24	14	8	0	0
7	16	0	803	11.5	24	24	24	24	24	14	8	0	0
8	19	0	827	11.8	24	24	24	24	24	14	9	4	0
9	16	0	767	10.7	24	24	24	24	24	15	9	5	0
10	17	0	814	11.8	24	24	24	24	24	16	10	4	0
11	18	0	820	12.6	24	24	24	24	22	16	10	4	0
12	18	0	821	12.6	24	24	24	24	22	16	10	5	0
13	16	0	818	11.6	24	24	24	24	24	14	9	0	0
14	16	0	819	12.7	24	24	24	24	24	15	8	0	0
15	14	0	754	12.3	24	24	24	24	22	14	7	0	0
16	16	0	781	11.3	24	24	24	24	24	16	9	0	0
17	20	0	759	10.7	24	24	24	24	24	16	10	5	0
18	18	0	775	12.2	24	24	24	24	24	17	11	5	0
19	16	0	782	11.7	24	24	24	23	24	15	9	0	0
20	13	0	812	11.8	24	24	24	21	24	13	7	0	0
21	17	0	838	12.5	24	24	24	24	24	16	7	0	0
22	15	0	791	11.3	24	24	24	24	24	15	8	0	0
23	15	0	775	10.8	24	24	24	24	24	15	8	0	0
24	18	0	842	12.5	24	24	24	24	24	14	8	0	0
25	15	0	765	12.0	24	24	24	24	24	14	8	0	0
26	14	0	809	12.0	24	24	24	24	23	13	6	0	0
27	13	0	783	10.5	24	24	24	24	24	14	5	0	0
28	13	0	797	11.5	24	24	24	24	24	15	6	0	0
29	13	0	836	12.1	24	24	24	24	23	13	7	0	0
30	16	0	804	12.0	24	24	24	24	22	13	6	0	0
31	16	0	783	11.9	24	24	24	24	21	13	7	0	0
TOTAL	497	0	24539	365.9	744	744	744	744	731	457	246	32	0
Mean	16.0	0.0	792	11.8	24.0	24.0	24.0	24.0	23.6	14.7	7.9	1.0	0

Percentage of total hours of sunshine duration occurred with respect to the total hours possible... 85%
Maximum amount of rainfall in one day (24 hours) ... ... 0.0 mms.

TABLE C 3.—EXTREME SOIL TEMPERATURES AT DIFFERENT DEPTHS AND MINIMUM AIR TEMPERATURE AT 5 cms. ABOVE GROUND

GIZA—JULY 1957

Extreme Soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry Soil	61.0	20.5	57.5	22.0	56.5	22.0	43.5	28.0	38.0	30.0	34.0	31.5	32.5	31.5	30.5	29.0	27.0	25.5	—	—
Wet Soil	46.0	20.0	41.0	19.5	39.0	20.0	33.5	21.5	30.0	23.0	28.5	24.5	27.0	25.5	25.0	24.0	23.0	21.5	—	—
Grass	35.5	23.5	—	—	—	—	30.5	24.5	30.0	25.0	29.5	27.0	27.5	26.5	26.5	25.0	—	—	—	—

Minimum air temperature (°C) at 5 cms. above ground:

Lowest minimum temperature over dry soil ... ... 15.3 °C on 11th.
" " " " wet soil ... ... 16.3 °C on 11th.
" " " " grass ... ... 13.6 °C on 11th.

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MONTHLY WEATHER REPORT

VOLUME 48 NUMBER 8

AUGUST 1957

MINISTRY OF WAR—METEOROLOGICAL DEPARTMENT
CAIRO—EGYPT

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CONTENTS

Note : Refer to volume 48 number 1 for the list of stations appearing in the report and for explanatory notes on the tables.

GENERAL SUMMARY OF WEATHER CONDITIONS

EGYPT—AUGUST 1957

Generally humid in the north, extensively hot in the south.

The main features were :

(*a*) Abnormal high humidity in the north.

(*b*) An oppressive heat wave prevailing in the north between the 11th and 22nd and in the south between the 11th and 26th.

General description of weather :

This month was characterized by high atmospheric humidity, especially over Lower Egypt where it exceeded its normal. Such high atmospheric humidity was responsible for the oppressive heat wave that prevailed over Lower Egypt between the 11th and 22nd, and over Upper Egypt between the 11th and 26th.

For the moth as a whole, mean atmospheric pressure slightly exceeded its normal, mean spheric maximum temperature was slightly above normal with the exception of Lower Egypt district where it was slightly below normal. Mean minimum temperature was slightly above normal in Lower and Middle Egypt districts, and slightly below normal elsewhere.

The mean daily relative humidity reached 73.0% at Alexandria (Kom el Nadura), 62.8% at Giza and 51.0% at Helwan.

Pressure and Wind :

The characteristic features of the pressure distribution over Egypt for the month as a whole were :

(1) A complex monsoon over Arabia, a result of the amalgamation process between Sudan and Iraq monsoons.

(2) High pressure belt extending from the British Isles S E wards towards the Western Desert.

(3) Rapid deep northern troughs north of the Black Sea.

The complex monsoon over Arabia deepened appreciably three times this month due to the rapid eastward transits of deep northern troughs through the Black Sea area, and consequently the barometric pressure over Egypt was below normal generally during the following three periods: (8th–10th), (13th–21st) and (25th–31st).

Apart from the above mentioned periods, the complex monsoon over Arabia filled up relatively, and the high pressure cell over western desert intensified slightly. The barometric pressure over Egypt wss slightly above normal most of the following three periods : (5th–7th), (10th–11th) and (24th–26th), but continued otherwise round normal.

The prevailing N/NW winds were moderate / fresh with occasional strong gusts Mediterranean and Red Sea coasts, light / moderate generally elsewhere. Local gales were reported at Hurghada on the 2nd, 4th, 5th and 8th.

Temperature :

Maximum temperature was slightly above normal in the north for the whole month, and moderately above normal extreme Upper Egypt most of the month. Slight temp–deviations above normal in the north, together with the abnormal high degrees of humidity accounted for the oppressive heat wave between the 11th and 22nd that was a characteristic abnormal feature of the month, while moderate temperature deviations above normal in the extreme South caused the prevailing extensive heat between the 11th and 26th

Minimum temperature was changeable in the western part of the north coast, slightly above normal elsewhere.

Precipitation :

No rain was reported over Egypt this month.

Miscellaneous weather phenomena :

Early morning fog or mist patches were reported at the following places :

(*a*) Mersa Matruh on the 12th, 16th and 17th.

(*b*) Alexandria on the 16th.

(*c*) Abu Sueir on the 12th, 13th, 14th, 17th, 18th, 19th, 20th, and 22nd.

(*d*) Cairo on the 11th, 12th, 14th, 15th, 16th, 17th, 19th and 23rd.

(*e*) Almaza on the 11th, 12th, 14th, 15th, 17th, 19th and 23rd.

(*f*) Mostafa Helmi on the 12th.

M. F. Taha
Director General.
Meteorological Departement

Cairo on 26/7/1958

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA
AUGUST 1957

District	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (° C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	10.9	—	11.3	+1.0	10.9	+0.9	11.3	+1.0	23.5	—	25.9	—0.9	30.0	+0.2	26.5	—0.1	81	—	67	+ 1	52	— 4	64	— 4
	Sidi Barrani	10.3	—	10.9	+0.7	11.0	+0.8	10.9	+1.0	23.7	—	25.9	—0.1	28.4	0.0	25.5	—0.2	83	—	76	+ 2	68	+ 2	80	+ 3
	Mersa Matruh (A)	10.5	+0.8	11.0	+1.0	10.8	+0.7	10.9	+0.8	22.3	—	25.9	+0.1	29.2	+1.4	25.3	—0.8	84	—	72	— 8	58	—18	77	— 4
	Dabaa	9.5	—	9.4	—	9.3	—	9.4	—	23.6	—	26.1	—0.3	29.3	+1.5	25.9	+0.2	79	—	75	+ 2	59	— 2	73	— 2
	Alexandria (A)	9.2	+0.8	9.8	+0.8	9.6	+0.7	9.7	+0.8	24.4	+0.6	27.4	+0.3	30.2	+0.7	25.9	+0.3	80	— 4	68	— 3	60	— 2	77	— 1
	Kom el Nadura	10.0	—	10.3	+1.3	10.0	+1.2	10.2	+1.4	25.5	—	27.0	+0.5	29.0	—0.3	25.0	+0.2	—	—	70	— 3	64	— 1	76	— 2
	Dekheila (A)	9.8	—	10.1	—	10.0	—	9.5	—	24.4	—	26.5	—	29.1	—	25.6	—	80	—	73	—	64	—	79	—
	Damietta	9.4	—	9.4	+0.6	9.4	+1.1	9.4	+1.0	25.1	—	25.2	—2.3	30.0	+0.6	25.5	+0.6	82	—	82	+ 8	58	— 6	78	— 4
	Port Said (A)	8.5	+0.8	9.1	+0.7	8.7	+0.8	8.8	+0.8	25.9	0.0	27.3	+0.1	29.1	—0.5	26.9	—0.2	78	+ 1	70	— 2	68	+ 4	77	+ 1
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	9.6	—	9.9	+0.4	9.6	+0.8	9.7	+1.8	22.9	—	25.6	—1.4	31.3	—0.5	25.5	+0.1	82	—	82	+ 9	53	+ 3	80	+ 1
	Mansoura	9.3	—	9.9	+0.5	8.7	+0.4	9.2	+0.2	23.8	—	25.6	—0.6	34.0	0.0	25.8	+0.4	73	—	78	+ 2	43	+ 4	68	— 3
	Tanta	8.7	—	9.1	—0.4	8.0	—0.5	8.8	—0.2	20.9	—	26.2	+0.2	33.6	—0.1	25.6	—0.3	88	—	74	— 4	40	— 2	69	— 3
	Shebin el Kom	8.8	—	10.0	+0.5	8.0	—0.4	8.9	—0.1	22.7	—	24.9	—1.0	32.8	—1.1	25.9	—1.2	86	—	80	+ 7	35	— 3	72	+ 9
	Zagazig	—	—	9.5	—0.1	8.8	+0.2	9.2	0.0	24.2	—	24.2	—2.5	33.3	—0.4	27.8	+0.9	—	—	84	+ 7	46	0	70	0
	Zaher (A)	9.6	—	10.3	—	9.1	—	9.3	—	23.2	—	25.1	—	34.2	—	28.2	—	84	—	78	—	35	—	59	—
	Wadi el Natrun	8.7	—	10.2	+0.8	8.5	+1.3	9.6	+1.2	24.4	—	24.2	—1.8	36.7	+1.5	28.5	—0.1	86	—	84	+12	32	+ 1	63	+ 8
	Abu-Sueir (A)	9.2	—	9.7	—	8.1	—	9.1	—	23.8	—	25.8	—	37.0	—	28.8	—	80	—	71	—	35	—	48	—
Cairo Area	Cairo (A)	9.1	+0.2	9.8	+0.3	8.0	0.0	9.0	+0.4	23.2	—0.5	24.4	—0.6	33.7	+0.3	23.8	—0.5	82	+ 4	80	+ 6	33	— 1	55	+ 5
	Almaza (A)	9.0	+0.4	9.6	+0.4	8.1	+0.3	8.6	+0.3	23.7	—0.4	24.5	—0.5	33.6	+0.2	29.2	—0.5	79	+ 2	78	+ 4	35	0	53	+ 4
	Mostafa Helmi (A)	8.5	—	9.1	—	7.3	—	7.8	—	22.3	—	24.3	—	34.1	—	28.0	—	79	—	69	—	29	—	50	—
	Giza	9.3	—	10.3	+1.3	9.1	+1.3	9.1	+0.9	23.6	—	24.8	—0.6	33.1	—1.0	28.2	—0.1	84	—	78	+ 2	38	+ 2	57	+ 1
	Helwan	—	—	9.9	+0.5	7.8	+0.7	8.6	+0.6	—	—	24.8	—0.2	34.1	+0.3	29.8	—0.2	—	—	72	+ 3	27	0	46	+ 6
Upper Egypt	Fayoum	9.4	—	9.8	+0.4	8.1	+0.5	8.0	+0.4	—	—	27.2	+1.0	34.9	+0.2	30.4	+0.7	—	—	63	— 5	28	0	43	— 1
	Beni Suef	6.8	—	10.0	+1.2	8.5	+1.3	8.3	+1.2	27.6	—	25.8	—1.5	35.3	—1.2	29.5	+0.1	57	—	69	+ 5	28	0	43	— 3
	Minya (A)	7.7	+0.1	8.7	+0.1	7.5	+0.3	7.0	+0.2	23.4	+0.2	25.8	—0.1	35.9	+0.3	28.1	—0.2	64	— 1	65	— 2	26	— 1	44	— 3
	Asyout (A)	7.3	—	8.9	+0.3	7.0	+0.3	6.9	+0.3	25.8	—	26.0	—1.4	35.5	—0.1	30.4	—0.3	45	—	57	+ 2	26	+1	34	— 2
	Nag Hammadi	5.9	—	7.3	—0.3	6.0	+0.4	5.8	—0.1	26.7	—	25.9	—3.1	36.1	—1.0	29.5	+0.1	58	—	60	+10	35	+ 9	49	+ 4
	Qena	5.5	—	7.0	—0.2	5.2	+0.1	5.1	—0.3	27.1	—	29.5	—0.9	39.3	—0.8	33.2	0.0	39	—	42	+ 3	20	+ 1	31	+ 2
	Luxor (A)	4.6	—0.5	6.0	—0.5	4.2	—0.3	4.3	—0.4	28.7	+1.2	32.2	—0.5	40.7	+0.8	34.1	+0.2	31	— 1	31	+ 2	17	+ 2	26	+ 3
	Aswan	4.7	—	6.1	—0.9	3.3	—0.6	3.8	—1.3	30.0	—	33.1	+1.5	42.5	+2.2	36.7	+0.7	30	—	31	0	15	— 3	18	— 2
Western Desert	Siwa	10.5	+1.0	11.9	+0.9	10.3	+0.9	9.3	+0.7	25.3	—0.1	24.4	—1.0	35.8	—0.4	32.4	—0.1	54	+ 3	66	+ 4	19	— 3	26	— 1
	Bahariya	9.6	—	10.7	+0.4	8.6	—0.2	8.5	—0.6	24.1	—	25.6	—0.4	36.2	+1.0	31.3	+0.8	62	—	64	+ 2	22	— 8	30	— 7
	Farafra	10.4	—	11.9	—	9.9	—	9.7	—	24.8	—	26.4	—	36.6	—	31.0	—	28	—	36	—	15	—	20	—
	Dakhla	8.5	—	9.0	—0.2	7.6	+0.4	7.2	—0.7	25.9	—	28.9	—0.1	38.3	+1.1	33.0	+0.4	39	—	39	+ 7	18	+ 1	25	+ 5
	Kharga	5.8	—	6.9	—1.5	5.3	—1.8	5.4	—1.8	25.4	—	28.9	—0.8	38.1	—0.2	32.0	—1.2	43	—	42	0	18	— 7	24	— 7
Red Sea	Suez	9.8	—	10.3	+1.6	8.6	+0.8	9.1	+1.5	26.9	—	26.2	—0.4	34.3	—0.3	30.5	+0.8	74	—	75	+ 4	35	0	53	— 2
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	4.2	—	5.3	—0.5	4.0	—0.4	4.0	0.0	28.1	—	30.1	+0.9	32.9	+1.4	30.9	+0.2	46	—	49	— 9	47	—13	43	— 9
	Quseir	—	—	5.4	—0.5	5.3	—0.2	4.8	—0.4	—	—	31.0	—0.5	32.0	—0.4	30.7	+0.4	—	—	43	— 4	48	—10	45	—11

TABLE A. 2—SURFACE CLIMATOLOGICAL DATA

AUGUST 1957

District	Station	Air Temperature (°C)												Rainfall in mms.						Mean Evaporation Piche (mms)
		Mean Max. (A)	Dev. from Normal	Mean Min. (B)	Dev. from Normal	Daily Mean A+B / 2	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No of days with amonut of rain			
							Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				≥ 0·1	≥ 1.0	≥ 10.0	
Mediterranean	Sallum	31·4	+0.1	22.2	+1.2	26.8	36.6	18	27.7	30	20.4	9	25.2	18	0	0	—	0	0	0	8.8
	Sidi Barrani ...	29.0	—0.2	21.4	—1.0	25.2	30.4	14,18	27.6	5·9	16.5	11	24.0	28	0	0	—	0	0	0	6.0
	Mersa Matruh (A)	30.2	+0.3	20.4	—0.7	25.3	32.8	12	28.8	3	17.4	31	23.7	19	0	0	—	0	0	0	11.0
	Dabaa	30.1	+0.1	21.0	—0.2	25.6	32.6	12	28.4	24	17.4	10	22.6	3·23	0	0	—	0	0	0	7.1
	Alexandria (A)	30.6	+0.3	23.5	+0.8	27.0	32.1	12·14·22	28.9	8	19.7	31	25.2	22	0	0	—	0	0	0	4.8
	Kom el Nadura	30.4	0.0	24.3	+0.4	27.4	31.8	22	28.8	2	23.1	31	25.3	22	0	0	—	0	0	0	5.3
	Dekheila (A)	29.6	—	23.6	—	26.6	31.0	12	27.6	2	18.6	31	25.4	28	0	0	—	0	0	0	6.7
	Damietta	30.8	—0.9	21.1	—0.4	26.0	35.9	22	28.7	7	19.0	10	23.0	4	0	0	—	0	0	0	5.0
	Port Said (A)	31.7	+1.0	24.2	—0.8	28.0	36.3	16	29.3	4	22.6	11	26.2	23	0	0	—	0	0	0	4.8
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	0	0	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	0	0	—	—	—	—	—
Lower Egypt	Damanhour ...	32.4	—0.4	20.6	+0.2	26.5	37.2	15	29.9	8	18.2	31	23.6	15	0	0	—	0	0	0	4.7
	Mansoura	34.7	0.0	20.5	—0.3	27.6	39.0	15	32.0	7·26	19.0	10	23.5	19	0	0	—	0	0	0	3.8
	Tanta	34.2	—0.2	20.3	+1.2	27.2	37.7	15	31.7	25·26	17.4	31	24.2	19	0	0	—	0	0	0	6.4
	Shebin el Kom ...	34.0	—1.1	21.4	+0.9	27.7	36.6	16	32.2	24	19.8	11	23.7	19	0	0	—	0	0	0	5.7
	Zagazig	34.2	—0.3	20.0	0.0	27.1	36.5	*	32.0	4·6,7	18.5	11·12	21.5	16·19	0	0	—	0	0	0	4.5
	Zaher (A)	34.9	—	21.6	—	28.2	38.1	22	32.8	24	20.0	11·12	24.0	16	0	0	—	0	0	0	11.3
	Wadi el Natrun	36.6	0.0	20.9	—0.1	28.8	41.3	15	33.7	7	18.6	28	24.1	19	0	0	—	0	0	0	10.2
	Abu Sueir (A)	35.6	—	22.1	—	28.8	39.5	22	32.6	27	19.6	12	24.5	5	0	0	—	0	0	0	13.0
Cairo Area	Cairo (A)	34.8	+0.1	21.4	—0.1	28.1	38.4	15	31.8	27	19.5	11	22.7	20·22	0	0	—	0	0	0	11.3
	Almaza (A)	34.9	+0.1	21.1	—0.9	28.0	38.8	15	32.5	26·27	19.7	11	23.3	13·16	0	0	—	0	0	0	8.8
	Mostafa Helmi(A)	35.0	—	20.7	—	27.8	39.7	15	31.8	24	18.8	12	22.8	2	0	0	—	0	0	0	22.6
	Giza	34.3	—0.4	20.9	+1.0	27.6	37.8	14·15	31.9	27	18.5	26·27	23.3	22	0	0	—	0	0	0	[illegible]
	Helwan	35.0	0·0	21.7	+0.1	28.4	38.7	15,22	31.9	26	19.5	11	23.4	23	0	0	—	0	0	0	13.4
Upper Egypt	Fayoum	37.4	+1.2	21.7	+0.3	29.6	40.7	15	34.6	27	20.0	26·27	24.0	15	0	0	—	0	0	0	9.3
	Beni Suef ...	36.4	—0.4	20.5	+0.3	28.4	40.1	15	34.2	27	18.3	11	22.2	21	0	0	—	0	0	0	8.4
	Minya (A)	36.8	+0.2	20.6	+0.1	28.7	40.3	16	34.6	5	18.2	27	23.5	22	0	0	—	0	0	0	11.6
	Asyoût (A)	36.6	—0·5	22.6	+0.2	29.6	40.5	23	33.8	27	20.7	11	24.7	14·18	0	0	—	0	0	0	18.7
	Nag Hammadi ...	37.5	—0.5	21.7	+0.9	29.6	41.6	16	34.1	8	18.9	11	25.4	24	0	0	—	0	0	0	7.4
	Qena	40.8	—0.1	24.9	+0.5	32.8	44.8	19	37.4	4.31	22.2	16	26.4	*	0	0	—	0	0	0	18.4
	Luxor (A)	41.9	+1.0	24.9	+1.6	33.4	44.5	3	38.2	8	22.0	17	27.0	22·23	0	0	—	0	0	0	17.7
	Aswan	43.9	+2.4	26.8	+0.2	35.4	47.9	3	40.2	27	23.8	19	29.9	3·6	0	0	—	0	0	0	14.0
Western Desert	Siwa	37.4	—0.1	21.4	—0.2	29.4	41.0	16	34.8	9	18.6	9	24.7	16	0	0	—	0	0	0	15.7
	Bahariya	37.2	+0.7	20.4	—0.1	28.8	41.5	16	34.0	9	17.8	27	23.2	16	0	0	—	0	0	0	9.1
	Farafra	37.4	—0.4	21.1	+0.3	29.2	41.4	16	34.0	5·8	16.7	11	23.8	23	0	0	—	0	0	0	21.9
	Dakhla	39.1	+0.5	21.6	—1.9	30.4	42.3	16	36.4	27	16.2	16	26.2	21	0	0	—	0	0	0	23.0
	Kharga	38.9	—0.3	21.4	—1.7	30.2	42.2	15,16	35.6	8	16.1	11	27.0	24	0	0	—	0	0	0	17.9
Red Sea	Suez	36.2	—0.1	21.9	—1.1	29.0	40.0	22	32.8	27	19.4	12	23.7	5	0	0	—	0	0	0	14.0
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	0	0	—	—	—	—	—
	Hurghada ...	34.2	+1.2	25.1	+0.1	29.6	37.4	16	31.7	5	21.5	15	28.0	2	0	0	—	0	0	0	23.9
	Quseir	33.5	—0.5	26.2	—0.7	29.8	36.2	18	31.7	29	25.0	29·30	28.4	2·3	0	0	—	0	0	0	18.8

* More than three days.

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

AUGUST 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandrising or Dustrising	Duststorms or Sandstorms	Gales
Sallum...	0	0	0	0	0	0	0	0
Sidi Barrani	0	0	0	0	0	0	0	0
Mersa Matruh (A)	0	0	0	0	3	0	0	0
Alexandria (A)	0	0	0	0	1	0	0	0
Port Said (A)	0	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	0	0	0	0	8	0	0	0
Cairo (A)	0	0	0	0	8	0	0	0
Almaza (A)	0	0	0	0	7	0	0	0
Mostafa Helmi(A)	0	0	0	0	1	0	0	0
Minya (A)	0	0	0	0	0	0	0	0
Asyoût (A)	0	0	0	0	0	0	0	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan...	0	0	0	0	0	0	0	0
Siwa	0	0	0	0	0	0	0	0
Hurghada	0	0	0	0	0	0	0	4
Quseir...	0	0	0	0	0	0	0	0

TABLE A4 NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

AUGUST 1957

STATION	Calm	Variable	Unrecorded	Wind Speed in Knots	Number of occurrences of wind blowing from the ranges of direction indicated in degrees from the north												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	
Sidi Barrani	39	0	217	1—10	30	—	—	—	—	—	—	—	—	1	22	41	94
				11—27	76	—	—	—	—	—	—	—	2	—	7	309	394
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**106**	—	—	—	—	—	—	—	**2**	**1**	**29**	**350**	**488**
Mersa Matruh (A) ...	7	6	0	1—10	20	2	—	—	—	—	—	3	71	113	83	107	399
				11—27	7	—	—	—	—	—	—	—	1	3	97	224	332
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**27**	**2**	—	—	—	—	—	**3**	**72**	**116**	**180**	**331**	**731**
Alexandria (A) ...	0	29	0	1—10	133	26	11	1	1	—	2	2	1	3	41	291	512
				11—27	63	—	—	—	—	—	—	—	—	—	6	134	203
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**196**	**26**	**11**	**1**	**1**	—	**2**	**2**	**1**	**3**	**47**	**425**	**715**
Port-Said (A) ...	0	7	0	1—10	129	23	4	1	1	—	—	4	14	95	73	229	573
				11—27	46	—	—	—	—	—	—	—	—	4	17	97	164
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**175**	**23**	**4**	**1**	**1**	—	—	**4**	**14**	**99**	**90**	**326**	**737**
Cairo (A) ...	18	25	2	1—10	276	126	39	15	3	—	—	—	1	14	49	127	650
				11—27	18	17	—	—	—	—	—	—	—	3	1	10	49
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**294**	**143**	**39**	**15**	**3**	—	—	—	**1**	**17**	**50**	**137**	**699**
Almaza (A) ...	4	4	0	1—10	233	130	9	4	—	—	1	—	3	20	62	157	619
				11—27	92	17	—	—	—	—	—	—	—	—	—	8	117
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**325**	**147**	**9**	**4**	—	—	**1**	—	**3**	**20**	**62**	**165**	**736**
Minya (A) ...	52	68	4	1—10	458	72	—	—	—	—	—	—	—	—	1	17	548
				11—27	14	56	—	—	—	—	—	—	—	—	—	2	72
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**472**	**128**	—	—	—	—	—	—	—	—	**1**	**19**	**620**
Luxor A) ...	5	84	0	1—10	3	1	1	6	6	38	118	93	61	84	142	85	638
				11—27	1	—	—	—	—	1	1	—	—	—	7	7	17
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**4**	**1**	**1**	**6**	**6**	**39**	**119**	**93**	**61**	**84**	**149**	**92**	**655**
Siwa	54	4	0	1—10	102	74	86	41	10	5	2	—	1	6	32	92	451
				11—27	93	41	35	3	2	1	—	—	—	—	1	59	235
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**195**	**115**	**121**	**44**	**12**	**6**	**2**	—	**1**	**6**	**33**	**151**	**686**
Hurghada	1	2	0	1—10	15	4	—	—	—	—	—	2	1	31	80	30	163
				11—27	73	4	—	—	—	—	—	—	—	19	122	306	524
				28—47	—	—	—	—	—	—	—	—	—	—	13	41	54
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**88**	**8**	—	—	—	—	—	**2**	**1**	**50**	**215**	**377**	**741**

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A) — 0000 U.T. — AUGUST 1957

Pressure Surface (millibar)	Heights of Pressure Surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	5	1002mb	1003mb.	1001mb	5	23.2	24.0	22.6	5	19.7
1000	5	89	96	79	5	23.0	23.9	22.5	5	19·6
850	5	1493	1510	1485	5	20.0	26.1	16.8	5	4.2
700	5	3147	3205	3120	5	12.9	16.8	9.3	2	— 7.4
600	5	4419	4483	4376	5	2.9	7.0	— 1.4	2	—11.1
500	5	5870	5933	5800	5	— 5.4	— 0.8	—12.7	—	—
400	5	7592	7653	7480	5	—15.2	—12.6	—19.8	—	—
300	5	9705	9786	9559	5	—30.0	—27.6	—33.7	—	—
200	4	12377	12548	12285	4	—50·1	—47.7	—52.8	—	—
150	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N—Number of observations of specified pressure surfaces.

TABLE B1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A)—1200 U.T.—AUGUST 1957

Presure Surface (millibar)	Heights of Pressure Surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.		Highest	Lowest	obst. at. 1200 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	7	1001mb	1004mb	1000mb	7	31·8	33·4	30·4	7	17·4
1000	7	81	105	70	7	31·6	33·0	30.0	7	17·0
850	7	1505	1524	1485	7	22·0	24·2	19.0	3	10.4
700	7	3177	3203	3139	7	15.7	18.6	13·8	—	—
600	7	4459	4500	4419	7	5.5	9·0	2.0	3	—9·2
500	7	5922	5981	5893	7	—3·3	—0·7	—7·9	2	—16·6
400	7	7662	7740	7622	7	—12·2	—9·0	—14·7	—	—
300	7	9750	9902	9668	7	—27·1	—23.0	—30.0	—	—
200	6	12605	12780	12518	6	—48·6	—38·5	—53·2	—	—
150	5	14630	15462	14382	5	—61.8	—55·8	—69·2	—	—
100	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N—Number of observations of specified pressure surfaces.

TABLE BI—UPPER AIR CLIMATOLOGICAL DATA

MERSA MATRUH (A) — 0000 U.T. — AUGUST 1957

Pressure Surface (millibar)	Heights of Pressure Surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.		Highest	Lowest	obst, at. 0000 U.T,	
	N	Mean			N	Mean			N	Mean
Surface	5	1009mb	1011mb	1oo7mb	5	21·5	23·0	19·9	5	18·6
1000	5	109	125	91	4	21·0	22·7	19·9	4	18·6
850	5	1511	1523	1485	4	17.2	21·7	14.4	—	—
700	5	3143	3168	3115	3	10.9	11.6	10·5	—	—
600	5	4409	4440	4382	4	2.8	4.7	—4·0	—	—
500	5	5863	5912	5840	4	—4.0	—0·9	—5·7	—	—
400	5	7582	7640	7540	5	—15·5	—13.1	—18.0	—	—
300	5	9685	9743	9623	5	—31·0	—28.7	—33·2	—	—
200	5	12437	12501	12331	5	—49.6	—48.3	—52.2	—	—
150	4	14258	14323	14158	4	—61.3	—57.9	—64.1	—	—
100	3	16732	16811	16603	3	—71·6	—66·4	—74.9	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N—Number of observations of specified pressure surfaces.

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

MERSA MATRUH (A) — 1200 U.T.—AUGUST 1957

Pressure Surface (millibar)	Heights of Pressure Surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 U.T.		Highest	Lowest	obs, at 1200 U T.		Highest	Lowest	obs. at 1200 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	5	1010(mb)	1011(mb)	1008(mb)	5	28.0	28.4	27.4	5	19.6
1000	5	117	127	101	4	27.0	27.4	26.3	4	17.7
850	5	1529	1544	1517	4	18.5	20.5	17.1	2	5 9
700	5	3172	3183	3163	5	13.5	15.8	11.7	—	—
600	5	4448	4451	4430	5	4.8	7.1	1.7	—	—
500	5	5910	5943	5870	5	— 3.4	0.0	— 6.7	—	—
400	5	7640	7688	7576	5	—15.3	—13.0	—18.5	—	—
300	4	9745	9817	9644	4	—31.7	—27.7	—38.5	—	—
200	3	12558	12630	12521	3	—49.2	—45.0	—52.1	—	—
150	3	14337	14446	14323	3	—63.5	—61.0	—65.9	—	—
100	3	16796	16921	16228	3	—70.9	—69.1	—72.0	—	—
60	3	19908	19943	19852	3	—57.9	—54.9	—64.0	—	—
40	3	22615	22753	22487	3	—47.7	—41.4	—55.8	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N—Number of observations of specified pressure surfaces

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

0000 U.T. — AUGUST 1957

STATION	Time of observation U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm (N)	Pressure mb (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Dir. (000-360)	Speed in knots
CAIRO (A)	0000	4936 (5)	564 (5)	—	5760	507	—	4250	610	—	—	—	—	—	—		—	—	—	13900	—	140	62
MERSA MATRUH (A)	0000	5236 (3)	543 (3)	—	5770	510	—	4880	566	—	16423 (3)	104 (3)	—74.7 (3)	16600	100	—75.6	16200	108	—75.2	17000	92	240	95
ASWAN	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = Total number of observations.

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

1200 U.T. — AUGUST 1957

STATION	Time of observation U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm. (N)	Pressure mb. (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Direction 000.360	Speed in knots
CAIRO (A)	1200	5259 (7)	549 (7)	—	5850	508	—	4670	582	—11·4	16300 (1)	110 (1)	—70·0 (1)	—	—	—	—	—	—	12400	210	220	66
MERSA MATRUH (A)	1200	5354 (5)	537 (5)	—	5950	500	—	5300	540	—	16433 (3)	108 (3)	—73·9 (3)	17900	85	—75·5	15200	130	—72 2	16600	—	180	72
ASWAN	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = Total number of observations.

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

CAIRO (A).— 0000 U.T. — AUGUST 1957

Pressure Surfaces mb.	Wind between Specified ranges of Direction (000–360)																						Calm	Total Number of observations (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			
Surface ...	2	2	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	5	2
1000 ...	1	2	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	3
850 ...	—	—	1	8	—	—	—	—	—	—	—	—	1	5	—	—	—	—	—	—	—	—	—	—	1	3	4
700 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
600 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
500 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
400 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
300 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
200 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
150 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

CAIRO (A). — 1200 U.T. — AUGUST 1957

Pressure Surfaces mb.	Wind between Specified ranges of Direction (000-360)																						Calm	Total Number of observations (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			
Surface ...	5	9	—	—	1	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	7	—	—	—	7	8
1000 ...	5	9	—	—	1	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	7	—	—	—	7	8
850 ...	—	—	3	12	1	6	—	—	—	—	—	—	—	—	—	—	2	7	1	9	—	—	—	—	—	7	9
700 ...	—	—	1	10	—	—	1	10	—	—	—	—	—	—	2	9	3	31	—	—	—	—	—	—	—	7	19
600 ...	1	3	—	—	—	—	—	—	—	—	—	—	—	—	3	19	3	19	—	—	—	—	—	—	—	7	17
500 ...	—	—	—	—	—	—	—	—	1	8	—	—	1	5	3	24	1	23	1	24	—	—	—	—	—	7	19
400 ...	—	—	—	—	—	—	1	7	—	—	—	—	2	12	2	13	1	36	1	27	—	—	—	—	—	7	17
300 ...	—	—	—	—	1	13	—	—	—	—	—	—	2	23	1	21	2	17	1	19	—	—	—	—	—	7	19
200 ...	—	—	—	—	—	—	—	—	—	—	2	42	—	—	1	63	2	20	—	—	—	—	—	—	—	5	37
150 ...	—	—	—	—	—	—	—	—	—	—	—	—	2	32	1	16	—	—	—	—	—	—	—	—	—	3	27
100 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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). — 0000 U.T. — AUGUST 1957

Pressure Surfaces mb.	Wind between Specified ranges of Direction (000–360)																						Calm	Total Number of observations (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			
Surface ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	7	—	—	1	8	—	5	7
1000 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	4	4	9	—	5	8
850 ...	2	14	—	—	—	—	—	—	—	—	—	—	—	—	1	8	—	—	1	21	—	—	1	12	—	5	14
700 ...	—	—	—	—	—	—	—	—	—	—	—	—	1	11	—	—	—	—	1	7	2	12	1	11	—	5	10
600 ...	—	—	—	—	—	—	—	—	—	—	1	20	1	27	1	15	—	—	1	34	1	15	—	—	—	5	22
500 ...	—	—	—	—	—	—	—	—	—	—	—	—	1	23	—	—	3	21	—	—	1	14	—	—	—	5	20
400 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	40	2	26	1	24	—	—	—	—	—	5	31
300 ...	—	—	—	—	—	—	—	—	—	—	—	—	1	37	2	28	1	40	1	35	—	—	—	—	—	5	34
200 ...	—	—	—	—	—	—	—	—	—	—	—	—	2	35	—	—	2	32	1	74	—	—	—	—	—	5	42
150 ...	—	—	—	—	—	—	—	—	—	—	—	—	2	51	—	—	1	44	—	—	1	40	—	—	—	4	46
100 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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). — 1200 U.T. — AUGUST 1957

Pressure Surfaces mb.	Wind between Specified ranges of Direction (000-360)																						Calm	Total Number of observations (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			
Surface ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	18	4	16	—	5	17
1000 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	14	4	17	—	5	16
850 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	12	1	10	—	5	12
700 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	20	—	—	2	7	—	—	—	—	—	5	15
600 ...	—	—	—	—	—	—	—	—	—	—	—	—	1	29	1	7	1	35	2	15	—	—	—	—	—	5	20
500 ...	—	—	—	—	—	—	—	—	—	—	—	—	2	19	2	21	—	—	1	20	—	—	—	—	—	5	20
400 ...	—	—	—	—	—	—	—	—	—	—	—	—	1	27	2	26	1	31	1	26	—	—	—	—	—	5	27
300 ...	—	—	—	—	—	—	—	—	—	—	—	—	1	22	2	26	1	37	—	—	—	—	—	—	—	4	28
200 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	34	1	27	—	—	—	—	—	—	—	3	32
150 ...	—	—	—	—	—	—	—	—	—	—	—	—	1	18	2	27	—	—	—	—	—	—	—	—	—	3	24
100 ...	1	15	—	—	—	—	—	—	1	49	—	—	1	35	—	—	—	—	—	—	—	—	—	—	—	3	33
60 ...	—	—	—	—	—	—	2	20	1	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	23
40 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGROMETEOROLOGICAL STATION AT GIZA

AUGUST 1957

Mean air temperature and relative humidity of this month were about normal, but mean vapour pressure was one millimetre above normal. No intense heat waves occurred, highest maximum being less than 38°C. Mean air temperature of August 1956 was more than 1° above normal, while its mean relative humidity was 5% below normal. No rainfall occurred this month, while 0.1 mm. fell in the previous August.

Maximum soil temperature at 0.3cm in dry field was 62°C, 5° less than the previous August. Generally, mean soil temperatures at different depths were slightly less than those of August 1956.

Mean wind at 2 meters height was the same as last year's. Total sunshine duration was 2% of the possible less than the previous August, while total sun and sky radiation was about 2000 calories per cm^2 more.

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METERS ABOVE THE GROUND

GIZA—AUGUST 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed meters per second		
	Max.	Min.	Mean of the day*	Day time mean	Night time mean	>90%	<80%	Relative %	Vapour pressure (mms)	Mean of the day	Day time mean	Night time mean
1	34.1	20.9	26.7	29	24	6	8	35	13.3	3.1	4.3	2.2
2	34.5	21.0	26.7	29	24	8	10	37	14.6	2.6	3.2	2.2
3	34.1	21.7	26.6	29	25	6	9	45	16.3	2.9	3.9	2.3
4	33.3	22.0	26.7	29	24	2	8	48	17.6	3.2	4.0	2.6
5	32.6	22.7	26.6	28	25	0	9	51	17.5	2.8	3.3	2.5
6	32.7	21.6	26.5	28	24	1	8	50	17.5	2.4	3.3	1.8
7	32.7	21.4	26.1	28	24	0	9	39	14.0	2.3	3.1	1.6
8	33.3	21.7	26.5	28	24	0	8	54	19.4	2.1	3.4	1.4
9	33.5	20.6	26.3	29	24	0	8	40	14.6	2.2	2.7	1.8
10	32.9	19.7	26.0	28	24	0	8	40	14.3	1.8	2.4	1.4
11	33.5	19.6	26.0	28	24	5	8	40	14.5	1.9	2.5	1.4
12	35.6	20.7	26.8	29	25	6	9	43	18.0	1.8	2.5	1.4
13	36.7	20.4	28.0	31	25	6	9	37	15.8	1.6	2.6	0.8
14	37·8	20.4	27.1	30	25	4	9	27	12.6	1.1	1.3	0.9
15	37.8	21.6	28.6	31	26	4	10	34	15.8	1.1	1.8	0.7
16	35.9	21.1	27.1	30	26	6	10	30	12.5	1.4	2.1	1.0
17	36.4	22.1	28.0	31	26	4	6	34	14.8	1.6	2.4	1.1
18	35.8	20.5	27.1	30	25	0	8	42	16.9	1.3	2.2	0.6
19	35.5	21.9	27.9	30	25	0	10	41	16.6	1.4	2.0	1.0
20	35.9	22.9	27.8	30	26	0	8	41	16.7	2.3	2.8	1.9
21	35.8	22.4	28.1	30	25	0	8	41	16.8	1.9	2.4	1.5
22	37.0	23.3	28.5	31	26	0	10	33	14.9	1.7	2.1	1.5
23	34.3	22.2	27.4	30	25	2	8	48	18.2	1.9	2.8	1.3
24	32.4	20.2	26.2	28	25	1	6	48	16.8	2.2	2.9	1.6
25	32.5	20.4	26.1	29	24	0	7	45	15.8	2.4	3.4	1.7
26	32.1	18.5	24.9	27	23	5	8	49	16.5	1.7	2.3	1.2
27	31.9	18.5	25.2	28	23	1	7	41	13.9	1.7	3.0	0.7
28	32.6	19.7	26.1	28	24	0	8	46	16.1	1.2	2.0	0.6
29	33.2	19.4	25.9	28	24	2	9	44	15.6	1.2	1.8	0.8
30	33.6	20.4	26.3	29	24	4	9	38	14.0	1.5	2.2	1.0
31	32.8	19.9	26.3	29	24	5	8	39	13.4	1.9	2.5	1.5
Mean	34.3	20.9	26.8	29	24	—	—	41	15.7	1.9	2.7	1.4
Highest	37·8	—	—	—	—	—	—	—	19.4	—	—	—
Date	14·15	—	—	—	—	—	—	—	8	—	—	—
Lowest...	—	18.5	—	—	—	—	—	27	12.5	—	—	—
Date	—	26.27	—	—	—	—	—	14	16	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+\text{Min}}{4}$

Humidity at 2 metres above ground :

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 69%

Lowest relative humidity ... ... 21% on 14th

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 17.1 mms.

Highest value of vapour pressure ... ... 20.9 mms. on 16th

Lowest value of vapour pressure ... ... 11.8 mms. on 18th

TABLE C 2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES

GIZA—AUGUST 1957.

DATE	Piche Evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 meters height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	17	0	764	11.4	24	24	24	24	24	13	8	0	0
2	14	0	715	9.9	24	24	24	24	24	14	8	0	0
3	14	0	754	11.3	24	24	24	24	24	14	7	0	0
4	14	0	759	11.4	24	24	24	24	24	15	6	0	0
5	13	0	751	10.9	24	24	24	24	24	14	5	0	0
6	12	0	727	11.6	24	24	24	24	24	14	6	0	0
7	13	0	748	11.2	24	24	24	24	24	14	6	0	0
8	11	0	755	11.3	24	24	24	24	24	13	6	0	0
9	13	0	806	12.3	24	24	24	24	24	14	7	0	0
10	13	0	802	12.2	24	24	24	24	23	14	7	0	0
11	13	0	789	11.8	24	24	24	24	22	14	6	0	0
12	13	0	778	10.7	24	24	24	24	24	14	8	0	0
13	14	0	795	12.2	24	24	24	24	24	15	10	3	0
14	11	0	730	10.1	24	24	24	24	24	15	9	4	0
15	13	0	727	10.3	24	24	24	24	24	16	11	5	0
16	14	0	730	9.8	24	24	24	24	24	15	9	3	0
17	14	0	728	10.5	24	24	24	24	24	15	9	3	0
18	13	0	758	11.9	24	24	24	24	24	15	9	0	0
19	12	0	741	11.1	24	24	24	24	24	15	10	0	0
20	14	0	765	11.5	24	24	24	24	24	14	8	0	0
21	12	0	747	11.3	24	24	24	24	24	16	8	1	0
22	13	0	737	11.2	24	24	24	24	24	15	9	4	0
23	13	0	713	10.9	24	24	24	24	24	16	9	0	0
24	13	0	761	12.1	24	24	24	24	24	15	6	0	0
25	13	0	749	12.1	24	24	24	24	24	14	6	0	0
26	11	0	754	11.3	24	24	24	24	22	12	4	0	0
27	11	0	758	11·7	24	24	24	24	21	13	5	0	0
28	10	0	722	11.3	24	24	24	24	24	13	6	0	0
29	10	0	739	10.9	24	24	24	24	23	14	6	0	0
30	13	0	722	11.6	24	24	24	24	24	15	7	0	0
31	12	0	738	11.7	24	24	24	24	24	15	6	0	0
TOTAL ...	396	0	23262	349.5	744	744	744	744	735	445	227	23	0
Mean	12.8	0.0	750.4	11.3	24.0	24.0	24.0	24.0	23.7	14.4	7.3	0.7	0

Percentage of total hours of sunshine duration occurred with respect to the total hours possible...85%

Maximum amount of rainfall in one day (24 hours) ... ... 0.0 mms.

TABLE C 3.—EXTREME SOIL TEMPERATURES AT DIFFERENT DEPTHS AND MINIMUM AIR TEMPERATURE AT 5 cms. ABOVE GROUND

GIZA—AUGUST 1957.

Extreme soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry soil	62.0	18.0	61.5	20.0	55.5	23.0	44.5	27.5	38.5	29.5	34.5	31.5	33.0	32.0	31.5	30.5	28.0	27.0	—	—
Wet soil	43.5	19.5	40.0	19.0	39.5	19.5	36.5	22.0	32.5	24.0	29.5	25.5	27.5	26.0	26.0	25.0	24.0	23.0	—	—
Grass	35.5	22.5	—	—	—	—	30.5	24.0	29.0	25.0	29.0	27.0	28.0	27.0	27.0	26.5	—	—	—	—

Minimum air temperature (°C) at 5 cms. above ground:

Lowest minimum temperature over dry soil ... ... 15.2 °C on 26th.

" " " " wet soil ... ... 15.7 °C on 26th.

" " " " grass ... ... 13.3 °C on 26th.

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القاهرة

MONTHLY WEATHER REPORT

VOLUME 48 NUMBER 9

SEPTEMBER 1957

MINISTRY OF WAR–METEOROLOGICAL DEPARTMENT
CAIRO–EGYPT

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CONTENTS

Note: Refer to volume 48 number 1 for the list of stations appearing in the report and for explanatory notes on the tables.

GENERAL SUMMARY OF WEATHER CONDITIONS

EGYPT– SEPTEMBER 1957

Mild summer weather in the north, extensivly hot in the south. Abnormal rainfall at Damietta; Scattered light local thunderstorms.

The main features were :

(1) Two remarkable prevailing heat waves.

(2) Abnormal atmospheric pressure Lower Egypt the 2nd week

(3) Occasional deepening of the complex monsoon Low over Arabia.

(4) Abnormal rainfall at Damietta on the 30th.

General description of weather :

For the month as a whole, weather was mild in the north, extremely hot in the south.

The mean atmospheric pressure, the mean maximum and the mean minimum temperatures were above normal over most of the Egyptian districts, while the mean monthly rainfall exceeded its normal over the Mediterranean district.

The mean daily relative humidity was 67.7% at Alexandria (Kom el Nadura), 66.7% at Giza and 53.7% at Helwan.

Pressure and wind :

The general pressure distribution during this month was as the following :

(*a*) The complex monsoon Low over Arabia.

(*b*) The high pressure belt extending from the British Isles SE wards towards the Western Desert of Egypt.

(*c*) Eastward travelling northern deep troughs.

The above mentioned complex monsoon low over Arabia has deepened up relatively four consecutive times during this month due to the approach of eastward deep northern troughs. Accordingly the barometric pressure over Egypt experienced a remarkable fall during the following four preiods: (5th—6th), (13th–16th), (21st—23rd) and (27th—30th); though it was slightly below normal.

Apart from the last four periods, the barometric pressure was generally above normal, but its deviation was pronounced in particular during the 2nd week in the north.

During this month light/moderate N/NE winds persisted in the extreme west, while light/moderate N/NW winds prevailed elsewhere. Over the Red Sea coast, fresh winds were observed during few scattered days.

Gales were reported at Aswan on the 10th.

Temperature :

Maximum temperature in general oscillated slightly round normal over Lower Egypt, and continued above normal Upper Egypt. Pronounced deviations above normal were observed during the two heat waves that prevailed over the whole country on the first and fourth weeks respectively.

Minimum temperature was changeable, though it continued below normal in the extreme west, above normal elsewhere.

Precipitation :

Abnormal rainfall was reported over scattered parts of the northern coast on the 24th, 29th, and the 30th. It extended inland over both Bahariya and Cairo on the 24th.

Damietta reported a fall of 18 mms on the 30th, which is a record since 1930.

Miscellaneous weather phenomena :

(*a*) Early morning fog or mist patches developed at Alexandria on the 25th, Cairo on both the 17th, and 18th, and Almaza on the 17th.

(*b*) Frequent early morning mist patches predominated over Damietta during most of the 2nd half of the month.

(*c*) Thunderstorms occurred at Sallum and Minya on the 29th, at Aswan on the 10th and at Mersa Matruh and Port Said on the 30th.

(*d*) Duststorms at Aswan on the 10th and 22nd.

Cairo on 29/7/1958.

M. F. Taha
Director General
Meteorological Department

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA

SEPTEMBER 1957

District	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (°C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	14.3	—	14.9	+ 1.1	14.4	+ 1.2	14.9	+ 1.3	23.4	—	24.6	— 0.6	28.2	— 0.1	25.4	+ 0.2	73	—	67	+ 1	57	— 1	67	— 3
	Sidi Barrani	13.7	—	14.6	+ 1.0	14.4	+ 0.9	14.7	+ 1.2	23.1	—	25.1	+ 0.5	27.9	+ 0.4	25.4	+ 0.5	82	—	75	+ 6	71	+ 9	78	+ 6
	Mersa Matruh (A)	14.3	+ 0.8	14.8	+ 1.0	14.5	+ 0.9	15.1	+ 1.2	21.5	—	25.5	+ 0.7	28.2	+ 1.2	24.6	— 0.5	77	—	66	—10	57	—14	70	— 7
	Dabaa	14.3	—	14.6	—	14.2	—	14.5	—	22.8	—	25.8	+ 0.4	28.2	+ 0.3	25.4	+ 0.7	74	—	64	— 4	55	— 4	67	— 2
	Alexandria (A)	13.8	+ 1.1	14.4	+ 1.7	14.0	+ 1.6	14.4	+ 1.7	23.0	+ 0.3	26.4	+ 0.3	29.8	+ 1.1	25.3	+ 0.7	76	— 6	64	— 5	53	— 5	69	— 5
	Kom el Nadura	14.6	—	14.9	+ 2.2	14.3	+ 2.1	14.7	+ 2.0	24.8	—	26.3	+ 0.6	28.1	— 0.3	25.5	+ 0.6	69	—	65	— 4	58	— 2	68	— 5
	Dekheila (A)	14.3	—	14 4	—	14.2	—	14.3	—	23.4	—	25.3	—	28.3	—	24.9	—	77	—	69	—	59	—	72	—
	Damietta	13.8	—	14.0	+ 1.3	13.9	+ 2.0	13.8	+ 1.6	24.1	—	24.3	— 1.9	28.1	+ 0.5	25.4	+ 0.7	75	—	80	+ 9	58	— 4	72	— 5
	Port Said (A)	13·5	+ 2.0	14.0	+ 1.8	13.5	+ 1.9	13.9	+ 2.0	25.1	0.0	26.5	+ 0.2	28.2	— 0.1	25.7	— 0.4	74	— 1	68	— 2	62	— 1	73	0
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	14.3	—	14.3	+ 0.9	14.0	+ 1.4	14.3	+ 1.3	22.0	—	24.4	— 0.5	30.2	+ 0.2	23.8	— 0.2	80	—	80	+ 4	53	+ 1	79	— 1
	Mansoura	14 3	—	14.3	+ 1.2	13.2	+ 1.4	14.2	+ 1.5	21.3	—	24.5	— 0.3	32.0	+ 0.4	24.6	+ 0.2	70	—	73	— 1	44	0	69	— 6
	Tanta	13.0	—	13.4	+ 0.5	12.0	+ 0.2	12.9	+ 0.5	19.5	—	25.2	+ 1.0	31.4	— 0.2	23.2	— 0.4	88	—	74	— 5	44	— 1	76	— 1
	Shebin el Kom	13.6	—	14.6	+ 1.6	12.9	+ 1.1	13.8	+ 1.4	20.1	—	23.2	— 1.0	30.7	— 1.5	24.9	— 0.1	90	—	81	+ 6	41	0	70	+ 2
	Zagazig	—	—	14.1	+ 0.9	13.3	+ 1.4	14.0	+ 0.9	23·0	—	23.3	— 1.9	31.5	— 0.2	25.5	+ 1.2	—	—	82	+ 4	47	— 2	71	— 7
	Zaher (A)	14.6	—	14.9	—	13.7	—	14.2	—	21.8	—	24.8	—	32.2	—	25.6	—	84	—	73	—	39	—	67	—
	Wadi el Natrun	14.3	—	14.5	+ 1.9	12.9	+ 2.2	14.1	+ 2.2	23.4	—	23.8	— 0.6	33.7	+ 0.7	27.3	0.0	83	—	79	+ 5	37	0	63	+ 4
	Abu-Sueir (A)	13.9	—	14.4	—	12.8	—	14.1	—	22.2	—	25.4	—	32.2	—	26.0	—	77	—	65	—	33	—	61	—
Cairo Area	Cairo (A)	13.5	+ 1.0	14.1	+ 1.0	12.3	+ 0.8	13.8	+ 1.4	22.1	+ 0.2	24.7	+ 1.1	32.1	+ 0.7	26.6	— 0.1	82	+ 1	69	— 5	36	— 1	58	+ 2
	Almaza (A)	13.4	+ 1.2	13.8	+ 0.8	12.1	+ 1.0	13.3	+ 1.3	22.4	+ 0.3	24.1	+ 0.4	32.0	+ 0.9	27.1	+ 0.1	78	— 4	72	— 4	38	— 2	57	+ 1
	Mostafa Helmi (A)	12.8	—	13.2	—	11.5	—	12.6	—	21.2	—	23.5	—	31.1	—	25.8	—	81	—	70	—	35	—	55	—
	Giza	13.9	—	14.6	+ 2.2	13.1	+ 2.1	14.0	+ 2.2	23.6	—	24.2	+ 0.8	31.4	— 0.1	26.4	+ 0.9	80	—	75	— 4	44	+ 3	58	— 5
	Helwan	—	—	13.9	+ 0.9	11.9	+ 0.8	13.1	+ 0.8	—	—	24.6	+ 1.1	32.3	+ 0.8	27.3	+ 0.1	—	—	66	— 3	32	+ 1	51	+ 4
Upper Egypt	Fayoum	13.6	—	14.0	+ 0.9	12.3	+ 1.3	12.5	+ 0.9	—	—	25.8	+ 1.6	33.1	+ 0.9	28.2	+ 1.6	—	—	64	— 7	32	— 1	49	— 4
	Beni Suef	13.1	—	14.1	+ 1.9	12.4	+ 2.1	12.7	+ 1.9	25.9	—	24.5	— 0.8	34.7	+ 0.4	27.5	+ 0.8	59	—	69	+ 2	30	0	51	— 1
	Minya (A)	11·5	+ 0.3	12.6	+ 0.4	11.1	+ 0.4	11.4	+ 0.5	21.6	+ 0.4	24.2	+ 0.5	33.6	+ 0.6	25.5	+ 0.4	75	+ 3	70	— 2	34	0	57	0
	Asyoût (A)	11.4	—	12.8	+ 0.9	10.4	+ 0.9	11.3	+ 1.1	24.4	—	24.7	0.0	35.6	+ 2.8	29.1	+ 0.8	52	—	58	— 4	23	— 7	37	— 7
	Nag Hammadi	10.3	—	11.3	+ 0.3	9.2	+ 0.6	9.5	+ 0.4	26.2	—	24.9	— 1.8	35.4	+ 1.3	29.4	+ 2.3	62	—	71	+13	40	+ 6	50	— 3
	Qena	9.5	—	10.9	+ 0.6	8.9	+ 1.0	9.2	+ 0.9	26.9	—	26.9	— 0.6	36.3	— 0.5	32.2	+ 2.2	47	—	60	+ 8	36	+ 8	41	+ 3
	Luxor (A)	8.8	+ 0.5	10.0	+ 0.3	7.8	+ 0.5	8.4	+ 0.5	27.6	+ 2.9	30.4	+ 1.8	39.4	+ 2.6	32.9	+ 2.3	42	+ 2	42	+ 2	21	+ 1	34	+ 2
	Aswan	8.0	—	9.8	— 0.4	6.6	— 0.8	7.5	— 0.7	29.6	—	31·5	+ 2.7	42.1	+ 3.6	35.2	+ 1.2	32	—	34	— 1	18	— 1	21	— 1
Western Desert	Siwa	13.9	+ 0.5	14·9	+ 0.5	13.5	+ 0.6	13.1	+ 0.6	24.3	+ 1·1	24·1	+ 0.8	34.6	+ 0.9	30.1	+ 0.8	54	— 3	60	— 5	25	— 1	32	— 1
	Bahariya	13.6	—	14.5	+ 0.3	12.1	— 0.2	12.9	— 0.1	23.5	—	24·9	+ 1.1	34.9	+ 2.3	29.8	+ 2.6	65	—	65	— 2	26	— 9	34	—10
	Farafra	14.1	—	15.3	—	13.0	—	13.4	—	23.7	—	25.0	—	35.0	—	29.1	—	35	—	43	—	19	—	25	—
	Dakhla	11.6	—	12.5	— 0.1	10.6	+ 0.6	10.7	— 0.3	27.0	—	28.0	+ 1.7	37.7	+ 3.3	32.0	+ 2.4	43	—	50	+ 9	22	0	31	+ 4
	Kharga	9.2	—	10.1	— 1.8	8.3	— 1.5	8.8	— 1.5	27.0	—	28.2	+ 1.3	37.3	+ 1.7	31.6	+ 1.2	37	—	43	— 7	19	— 9	24	—11
Red Sea	Suez	13.6	—	14.9	+ 2.3	12.4	+ 1.0	13.2	+ 1.7	21.6	—	24.8	0.0	32.6	+ 0.4	27.6	+ 0.6	72	—	73	0	36	— 2	57	— 3
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	9.1	—	10.1	+ 1·2	8.6	+ 1.4	9.0	+ 1.6	26.3	—	27.8	+ 0.8	31.6	+ 2.2	29.5	+ 1.3	56	—	58	— 3	51	—13	46	— 9
	Quseir	—	—	9.9	+ 0.8	9.3	+ 0.9	9.3	+ 1.0	—	—	29.7	+ 0.2	30.6	— 0.2	29.0	+ 0.5	—	—	55	+ 5	60	0	60	+ 2

TABLE A 2.—SURFACE CLIMATOLOGICAL DATA

SEPTEMBER 1957

District	Station	Air Temperature (°C)												Rainfall in Millimetres						Mean Evaporation Piche (mms)
		Mean Max.		Mean Min.		Daily Mean A+B	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No. of days with amount of rain			
		Mean (A)	Dev. from Normal	Mean (B)	Dev. from Normal	2	Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				≥ 0.1	≥ 1.0	≥ 10.0	
Mediterranean	Sallum	29.3	—0.5	21.4	+1.6	25.4	39.0	5	26.6	19	18.2	19	24.6	17	0.6	0.6	28	1	0	0	8.2
	Sidi Barrani	29.0	+0.7	19·2	—1·6	24.1	38.2	5	27.0	25	17.3	2	24.1	6	0	0	—	0	0	0	5.8
	Marsa Matruh (A)	29.8	+1.0	19.5	—0.2	24.6	37.7	23	27.8	20	17.1	22	23.7	6	9.0	9.0	30	0	1	0	9.2
	Dabaa	29.4	+0.4	19.5	—0.4	24.4	34.4	23	27.8	18·20	13.5	6	23.9	7	0	0	—	0	0	0	7.2
	Alexandria (A)	30.4	+1.0	21·6	+0.4	26.0	36.6	6	28.8	18	18.5	23	24.0	3.11	0	0	—	0	0	0	5.3
	Kom el Nadura	30.0	+0.1	23.4	+0.5	26.7	35.0	6	28.8	22	21.3	29	25.1	7	tr.	tr.	30	0	0	0	6.4
	Dekheila (A)	29.1	—	21·2	—	25.2	35.1	6	27.7	18·22	18.4	23	24.5	7	0	0	—	0	0	0	7.1
	Damiette	29.2	—0.9	20.9	+0.6	25.0	31.2	29	27.7	19	18.5	27	23.9	8	18.0	18.0	30	0	0	1	4.5
	Port Said (A)	29.3	+0.1	23.3	—0.7	26.3	31.5	25	28.8	10·11	21.5	24	24.5	11	tr.	tr.	30	0	0	0	5.2
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	31.7	+0.3	19·3	+0.3	25.5	36.1	6	28.9	20	18.1	19·21	21.6	7	0	0	—	0	0	0	3.7
	Mansoura	32.6	0.0	19.4	+0.1	26.0	35.5	6	30.6	20	18.0	17	22.2	7	0	0	—	0	0	0	3.7
	Tanta	32.2	+0.1	18.1	+0.8	25.2	35.4	6	30.3	20	15.9	23	21.5	7	0	0	—	0	0	0	5.1
	Shebin el Kom	32.0	—1·1	19.8	+0.9	25.9	33.4	24	30.4	19·21	18.7	23·29	21.4	3.18	0	0	—	0	0	0	4.2
	Zagazig	32.4	—0.1	18.9	+0.7	25.6	34.5	6	31.0	11	17.0	21	20.5	7	0	0	—	0	0	0	4.2
	Zaher (A)	32.6	—	20.3	—	26.4	37.3	6	30.4	11·20	18.6	21·23	22.0	8	0	0	—	0	0	0	10.1
	Wadi el Natrun	34.7	+0·4	19.8	+0.5	27.2	40.7	6	32.5	19	17.8	20	22.6	7	0	0	—	0	0	0	8.3
	Abu Sueir (A)	33.0	—	20.4	—	26.7	36.6	6	31.0	11·21	18.0	20	23.3	10	0	0	—	0	0	0	10.7
Cairo Area	Cairo (A)	32.9	+0.5	20.5	+0.6	26.7	38.7	6	30.5	21	18.0	21	22.4	8	0	0	—	0	0	0	10.4
	Almaza (A)	32.8	+0.5	20.5	+0.3	26.6	38.4	6	30.0	21	18.8	21	22.4	8	0	0	—	0	0	0	9.4
	Mostafa Helmi (A)	31.7	—	19.4	—	25.6	35.9	6	29.2	19	16.5	29	21.7	17	0	0	—	0	0	0	17.5
	Giza	32.5	+0.5	19.2	+1·4	25.8	37.6	6	30.5	19·21	16.3	20	22.0	8	tr.	tr.	11·24	0	0	0	[illegible]
	Helwan	33.1	+0.7	20.8	+0.7	27.0	39.5	6	30.1	20	17.8	21	23.1	24	tr	tr	24	0	0	0	12.1
Upper Egypt	Fayoum	35.0	+1.7	20.3	+0.9	27.6	41.0	6	32.0	20	18.0	20·21	23.0	26	0	0	—	0	0	0	7.7
	Beni Suef	35.0	+0.5	18.8	+0·4	26.9	40.5	6	31.8	11	17.1	6·21·23	21.8	8	0	0	—	0	0	0	7.0
	Minya (A)	34.3	+0.9	20.1	+1.5	27.2	39.8	6	31.2	11	17.0	21	23.0	8	1.2	1.2	29	0	1	0	9.2
	Asyoût (A)	36.4	+1.1	21.6	+1.4	29.0	41.5	24	33.3	19.20	18.5	21	24.8	29	0	0	—	0	0	0	18.0
	Nag Hammadi	37.2	+1.9	21.3	+1.5	29.2	41.3	7	34.9	20	18.2	4	24.3	9	0	0	—	0	0	0	6.8
	Qena	37.9	—0.4	24.2	+1.8	31.0	43.2	7	35.6	16·17·20	22.8	7·22	26.2	9.10	0	0	—	0	0	0	13.7
	Luxor (A)	40.8	+2.5	23·9	+2.4	32.4	44.4	25	38.2	28	21.3	6	26.8	10	0	0	—	0	0	0	15.7
	Aswan	43.3	+3.7	26.1	+2.0	34.7	47.6	25	39.0	3	22.0	4	29.0	25	1.0	1·0	10	0	1	0	10.5
Western Desert	Siwa	35.9	+0.9	20.7	+1.1	28.3	40.8	5	32.1	18	17.2	21	25.0	24	0	0	-	0	0	0	12.7
	Bahariya	35.8	+2.0	20·9	+2.5	28.4	42.6	6	32.2	12	17.0	20·21	23.6	7	tr.	tr.	24	0	0	0	8.6
	Farafra	35.9	+0.7	20·8	+2.0	28.4	42.6	6	33.0	12	18.0	20·21	24.7	7	0	0	—	0	0	0	19.1
	Dakhla	38.4	+2.7	21·9	+0.7	30.2	42.6	24	35.3	19·20	17.0	21	26.3	10.26	0	0	—	0	0	0	23.4
	Kharga	37.1	+0.8	23.6	+2.1	30.4	41.9	24	35.0	20	18.3	3	28.5	25	0	0	—	0	0	0	21.2
Red Sea	Suez	33.9	+0·4	20.1	—1.1	27.0	38.6	7	31.4	28	17.5	21	22.9	8	0	0	—	0	0	0	11.9
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurgada	32.7	+2.1	24.2	+1.0	28.4	35.9	27	31.2	21	20.8	30	26.3	9	0	0	—	0	0	0	20.9
	Quseir	31.9	—0·4	25.4	0.0	28.6	34.9	7	30.1	21	22.9	3	26.9	1	0	0	—	0	0	0	18.3

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

SEPTEMBER 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandrising or Dustrising	Duststorms or Sandstorms	Gales
Sallum	1	0	0	1	0	0	0	0
Sidi Barrani	0	0	0	0	0	0	0	0
Mersa Matruh (A)	1	0	0	1	0	0	0	0
Alexandria (A)	0	0	0	0	1	0	0	0
Port Said (A)	0	0	0	1	0	0	0	0
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	0	0	0	0	0	0	0	0
Cairo (A)	0	0	0	0	2	0	0	0
Almaza (A)	0	0	0	0	1	0	0	0
Mostafa Helmi (A)	0	0	0	0	0	0	0	0
Minya (A)	1	0	0	1	0	0	0	0
Asyoût (A)	0	0	0	0	0	0	0	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan	1	0	0	1	0	0	2	1
Siwa...	0	0	0	0	0	0	0	0
Hurghada	0	0	0	0	0	0	0	0
Quseir	0	0	0	0	0	0	0	0

TABLE A 4.—NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

SEPTEMBER 1957

STATION	Calm	Variable	Unrecorded	Wind Speed in Knots	Number of Occurrences of wind blowing from the ranges of directions indicated in degrees from the north												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	
Sidi Barrani	19	0	672	1–10	2	—	—	—	—	—	—	—	—	—	4	6	12
				11–27	8	—	—	—	—	—	—	—	—	—	—	9	17
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**10**	—	—	—	—	—	—	—	—	—	**4**	**15**	**29**
Mersa Matruh (A)	71	13	0	1–10	61	23	11	6	5	13	2	15	83	43	32	153	447
				11–27	24	9	—	5	13	3	6	2	1	—	15	111	189
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**85**	**32**	**11**	**11**	**18**	**16**	**8**	**17**	**84**	**43**	**47**	**264**	**636**
Alexandria (A)	9	55	0	1–10	257	102	29	22	12	25	14	10	2	1	8	113	595
				11–27	33	19	2	1	—	—	—	—	—	—	—	6	61
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**290**	**121**	**31**	**23**	**12**	**25**	**14**	**10**	**2**	**1**	**8**	**119**	**656**
Port-Said (A)	0	0	3	1–10	187	106	40	14	7	7	5	1	13	17	21	181	599
				11–27	66	8	1	—	—	—	—	—	—	—	—	43	118
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**253**	**114**	**41**	**14**	**7**	**7**	**5**	**1**	**13**	**17**	**21**	**224**	**717**
Cairo (A)	11	0	17	1–10	92	242	160	52	24	—	1	—	—	—	9	33	613
				11–27	8	58	10	2	1	—	—	—	—	—	—	—	79
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**100**	**300**	**170**	**54**	**25**	—	**1**	—	—	—	**9**	**33**	**692**
Almaza (A)	9	0	1	1–10	162	255	31	9	1	1	—	—	1	3	9	70	542
				11–27	73	74	4	1	—	—	—	—	—	—	1	15	168
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**235**	**329**	**35**	**10**	**1**	**1**	—	—	**1**	**3**	**10**	**85**	**710**
Minya (A)	25	88	2	1–10	369	78	3	—	—	—	—	—	—	1	4	11	466
				11–27	103	33	—	—	1	—	—	—	—	—	—	2	139
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**472**	**111**	**3**	—	**1**	—	—	—	—	**1**	**4**	**13**	**605**
Luxor (A)	132	15	0	1–10	33	22	10	6	13	48	106	31	21	45	92	142	569
				11–27	1	—	—	—	—	—	—	—	—	—	—	3	4
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**34**	**22**	**10**	**6**	**13**	**48**	**106**	**31**	**21**	**45**	**92**	**145**	**513**
Siwa	65	5	0	1–10	52	36	85	95	51	25	8	4	4	8	25	46	439
				11–27	28	27	37	29	15	9	15	3	1	3	9	35	211
				28–47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**80**	**63**	**122**	**124**	**66**	**34**	**23**	**7**	**5**	**11**	**34**	**81**	**650**
Hurghada	0	1	4	1–10	23	5	—	—	—	—	—	—	—	16	73	23	140
				11–27	33	1	—	—	—	—	—	—	—	26	144	61	565
				28–47	—	—	—	—	—	—	—	—	—	—	2	8	10
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**56**	**6**	—	—	—	—	—	—	—	**42**	**219**	**392**	**715**

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METERS ABOVE THE GROUND

GIZA—SEPTEMBER 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed meters per second		
	Max.	Min.	Mean * of the day	Day time mean	Night time mean	>90%	>80%	Relative %	Vapour pressur (mms.)	Mean of the day	Day time mean	Night time mean
1	32.1	19·0	25.4	28	24	6	7	49	16.6	1.9	2.5	1.4
2	32.1	19.4	25.5	28	23	3	8	43	14.3	1.5	2.3	1.0
3	31.9	18.1	24.9	28	23	1	6	48	15.4	1.4	2.3	0.7
4	31.7	18.9	25.3	28	24	6	6	48	16.0	1.5	2.3	1.0
5	33.2	18.9	25.7	28	24	5	6	36	13.1	1.9	3.0	1.1
6	37.6	19.9	28.0	31	25	0	2	28	13.0	2.2	3.0	1.6
7	34.4	20.9	26.3	29	26	6	10	52	19.7	2.2	3.2	1.5
8	32.6	22.0	26.5	29	25	0	8	50	17.6	2.5	3·2	2.0
9	31.8	21.3	25.9	28	24	0	6	50	17.0	2.9	3.8	2.3
10	31.5	21.6	25.8	27	24	0	8	45	14.5	2.8	3.6	2.3
11	31.0	21.4	25.4	27	24	0	7	49	15.5	2.2	2.9	1·6
12	30.8	17.2	24.3	26	23	6	8	48	15.3	1.7	2·6	1.1
13	31.2	17.8	24.6	27	23	4	8	46	15.1	2·1	3.3	1.3
14	32.2	18·9	25.0	27	23	5	10	47	16.0	2.4	3.4	1.6
15	32.3	20.9	26.1	28	24	6	8	43	15.2	2.4	3.1	1.8
16	32.8	17·8	24.9	28	23	7	10	47	15.9	1.9	2.5	1.5
17	33.7	19.7	25.3	28	24	11	12	46	16.3	1.6	2.3	1.1
18	32.6	21.8	26.1	28	24	8	9	47	16.4	1.7	2.4	1.2
19	30.5	18.2	24.0	27	23	6	8	45	14.0	1.8	2.4	1.4
20	30.6	16.3	23.2	26	22	5	8	45	14.0	1.7	2.6	1.1
21	30.5	16.4	23.6	26	21	6	8	48	14.8	1.6	2.7	0.9
22	31.7	19·0	24.9	27	23	4	7	45	15.1	1.9	2.9	1.2
23	33.4	17.7	25.7	28	24	4	7	36	13.5	2.2	3.2	1.4
24	33.9	18.2	25.2	28	24	5	7	30	11.1	2.2	3.0	1.7
25	33.5	19.8	26.3	29	25	4	10	42	15.5	2.6	3.5	2.1
26	32.6	20.8	25.9	28	25	6	8	43	14.7	2.1	2.2	2.0
27	32.3	17.9	25.3	28	24	3	6	42	14.7	1.6	2.3	1.0
28	31.9	18.4	24.8	28	25	3	6	49	16.2	1.6	2.0	1.2
29	33.8	17.5	25.6	29	24	3	5	31	11.8	1.3	1.6	1.1
30	35.4	18.9	25.6	28	24	6	9	29	11.5	1.4	2.2	0.9
Mean	32.5	19·2	25.4	27.8	23.8	—	—	44	15.0	2.0	2.7	1.4
Highest	37.6	22.0	—	—	—	—	—	—	19.7	—	—	—
Date	6	8	—	—	—	—	—	—	7	—	—	—
Lowest...	30.5	16.3	—	—	—	—	—	28	11.1	—	—	—
Date	19·21	20	—	—	—	—	—	6	24	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+\text{Min}}{4}$

Humidity at 2 metres above ground :

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 68%

Lowest relative humidity ... ... 24% on ... ... 6th.

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 15.9 mms.

Highest value of vapour pressure ... ... 19.7 mms. on ... ... 7th.

Lowest value of vapour pressure ... ... 9.5 mms. on ... ... 24th.

TABLE C 2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES.

GIZA—SEPTEMBER 1957.

DATE	Piche evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 meters height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	11	0	722	11.4	24	24	24	24	21	13	5	0	0
2	12	0	721	11.4	24	24	24	24	21	12	6	0	0
3	12	0	724	10.9	24	24	24	24	21	14	5	0	0
4	12	0	687	10.4	24	24	24	24	22	14	4	0	0
5	15	0	699	11.0	24	24	24	24	22	13	7	0	0
6	17	0	698	11.5	24	24	24	24	24	16	10	5	0
7	12	0	661	9.9	24	24	24	24	24	13	8	0	0
8	13	0	681	11.3	24	24	24	24	24	15	7	0	0
9	13	0	688	11.1	24	24	24	24	24	13	5	0	0
10	13	0	670	11.1	24	24	24	24	24	13	4	0	0
11	12	Tr.	572	8.2	24	24	24	24	24	13	2	0	0
12	12	0	691	11.1	24	24	24	24	19	12	2	0	0
13	13	0	709	11.4	24	24	24	24	21	12	3	0	0
14	13	0	660	10.6	24	24	24	24	22	12	5	0	0
15	13	0	668	10.9	24	24	24	24	24	13	6	0	0
16	11	0	674	10.9	24	24	24	24	20	13	6	0	0
17	10	0	660	9.7	24	24	24	24	24	12	6	0	0
18	11	0	635	10.5	24	24	24	24	24	12	5	0	0
19	11	0	661	10.8	24	24	24	24	19	10	0	0	0
20	11	0	674	10.8	24	24	24	24	17	10	0	0	0
21	10	0	652	10.9	24	24	24	24	18	11	0	0	0
22	13	0	654	10.3	24	24	24	24	19	12	4	0	0
23	16	0	629	10.5	24	24	24	24	20	15	7	0	0
24	15	Tr.	443	6.3	24	24	24	24	19	14	7	0	0
25	14	0	551	9.6	24	24	24	24	24	12	7	0	0
26	11	0	613	9.8	24	24	24	24	24	13	5	0	0
27	13	0	624	10.6	24	24	24	24	22	14	6	0	0
28	11	0	599	9.8	24	24	24	24	22	13	5	0	0
29	13	0	622	10.5	24	24	24	24	22	15	6	0	0
30	13	0	584	10.3	24	24	24	24	22	14	6	0	0
TOTAL	376	Trace	19526	313.5	720	720	720	720	653	388	149	5	0
Mean	12 5	0.0	650.9	10.5	24	24	24	24	21.8	12.9	5.0	0.2	0

Percentage of total hours of sunshine duration occurred with respect to the total hours possible... 85%
Maximum amount of rainfall in one day (24 hours)... ... ... Traces on ... 11th and 24th.

TABLE C 3.—EXTREME SOIL TEMPERATURES AT DIFFERENT DEPTHS AND MINIMUM AIR TEMPERATURE AT 5 cms. ABOVE GROUND

GIZA—SEPTEMBER 1957

Extreme Soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry Soil	56.5	15.5	53.5	18.5	48.0	20.0	41.0	25.0	36.0	27.5	33.0	29.0	32.5	30.5	31.0	30.0	28.5	28.0	—	—
Wet Soil	40.0	17.0	39.5	17.0	39.0	17.5	32.5	20.0	30.0	22.0	28.0	24.0	26.5	25.5	25.5	25.0	24.0	24.0	—	—
Grass	33.5	20.5	—	—	—	—	28.5	22.0	27.5	23.0	27.5	25.0	27.0	26.0	26.5	26.0	—	—	—	—

Minimum air temperature (°C) at 5 cms. above ground:

Lowest minimum temperature over dry soil ... ... 12.6 °C on 21st.
" " " " wet soil ... ... 13.8 °C on 21st.
" " " " grass ... ... 11.0 °C on 21st.

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MONTHLY WEATHER REPORT

VOLUME 48 NUMBER 10

OCTOBER 1957

MINISTRY OF WAR—METEOROLOGICAL DEPARTMENT
CAIRO—EGYPT

MONTHLY WEATHER REPORT

VOLUME 48 NUMBER 10

OCTOBER 1957

MINISTRY OF WAR—METEOROLOGICAL DEPARTMENT
CAIRO—EGYPT

GENERAL SUMMARY OF WEATHER CONDITIONS

EGYPT—OCTOBER 1957

Mild generally in the north with frequent light rain during the 2nd third, hot elsewhere. Maximum temperature and rainfall records.

The main features were :

(1) Four consecutive barometric pressure oscillations.

(2) Rainy most of the 2nd third of the month along the northern coast with few thunderstorms

(3) Three remarkable heat waves extreme south.

General description of weather :

For the month as a whole, the weather was rather mild in the north, hot elsewhere, particularly over Upper Egypt where three remarkable heat waves have been distinguished.

The mean barometric pressure was below normal, the mean maximum and the mean minimum temperatures were above normal.

Rainfall was generally above normal with the exception of the Middle Egypt district where it was slightly below normal.

The mean daily relative humidity was 67.7% at Alexandria (Kom el Nadura), 68.3% at Giza and 53.3% at Helwan.

Pressure and Wind :

The outstanding features in the monthly pressure distribution were :

(*a*) A belt of high pressure over British Isles extending eastwards through Europe towards the Black sea and east Mediterranean.

(*b*) The Iraq and Sudan lows.

(*c*) Low pressure system over west Mediterranean.

The barometric pressure over Egypt oscillated four consecutive times and continued below normal during the following four periods : (4th—9th), (12th—17th), (19th—23rd) and (26th—28th).

During the 1st and 2nd periods, the fall in barometric pressure was due to the slight deepening of both Iraq and Sudan monsoon lows by the rapid eastward transit of deep northern troughs through the Black Sea Area. The third and fourth falls were due to the northward elongation of the Sudan Monsoon, by the approach of both complex low pressure systems over Central Europe and west Mediterranean towards east Mediterranean.

Light / moderate N^{ly} winds prevailed generally all over the country. Calm winds were frequent during night over Middle Egypt and Upper Egypt. Fresh/ strong winds were experienced for short periods over Middle and Upper Egypt.

Temperature :

Maximum temperature oscillated slightly round normal in the north. Elsewhere it was abnormally high most of the month. Upper Egypt in particular experienced three consecutive variant heat waves ; the corresponding peaks of which were round the 7th, 20th, and 27th. Aswan reported a maximum temperature of 46.4°C on the 7th (i.e 9.4°C above normal) which is a record since 1901.

Minimum temperature was generally below normal in the west district, above normal Middle and Upper Egypt, and oscillatory elsewhere.

Precipitation :

Rain was more or less frequent between the 10th and 21st over Lower Egypt, and the monthly rainfall in general exceeded its normal. Heavy rain was reported at Matruh on the 13th, Damanhour on the 15th, Dabaa on both 13th and 16th. The maximum daily rainfall amounts at stations in the following table are records for months of October :

Station	Rainfall mm	Record since the year	Date
Siwa	7.0	1912	18/10/57
Bahariya	6.0	1931	19/10/57
Minya (A)	6.5	1941	20/10/57

Cairo on 5/8/1958

Miscellaneous weather phenomena :

(*a*) Hail was reported at Alexandria on the 13th.

(*b*) Thunderstorms occurred at Sallum on the 11th and 13th, at Mersa Matruh on the 14th, Alexandria on the 13th, 14th and 17th, Abu Sueir on the 15th, and Hurghada on the 30th.

(*c*) Early morning fog patches developed at Alexandria on the 7th, Abu Sueir, Cairo and Almaza on the 9th, and Mostafa Helmi on the 26th and 31st.

(*d*) Sandstorms accurred at Mersa Matruh and Asyout on the 20th, Cairo on the 13th.

M. F. TAHA
Director General.
Meteorological Departement

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA

OCTOBER 1957

Division	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (° C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	14.2	—	14.8	−1.2	14.0	−1.4	14.8	−1.0	21.3	—	21.5	−0.8	26.5	+0.3	23.7	+0.7	73	—	71	+ 5	54	— 1	68	0
	Sidi Barrani	13.3	—	14.5	−1.0	14.0	−0.8	14.6	−0.6	19.5	—	21.0	−0.5	25.9	+0.2	22.9	+0.2	84	—	78	+10	64	+ 8	75	+ 7
	Mersa Matruh (A)	14.6	−1.5	15.1	−1.3	14.4	−1.3	15.4	−1.0	18.9	−0.3	21.7	−0.4	25.6	+0.3	21.4	−1.6	84	+ 8	76	+ 7	57	0	78	+ 6
	Dabaa	—	—	14.5	—	13.8	—	14.3	—	—	—	22.2	+0.1	25.7	0.0	22.2	0.0	—	—	72	+ 5	59	+ 6	74	+ 5
	Alexandria (A)	14.1	−1.3	14.8	−1.2	14.0	−1.0	14.8	−1.0	20.9	+1.1	23.3	+0.4	27.1	+0.5	22.8	+1.0	80	— 1	75	+ 5	60	+ 6	73	0
	Kom el Nadura	15.1	—	15.4	−0.2	14.3	−0.5	15.1	−0.4	23.1	—	24.3	+0.7	26.1	−0.6	23.6	+0.6	71	—	69	0	62	+ 4	72	+ 1
	Dekheila (A)	14.6	—	14.8	—	14.2	—	14.7	—	20.8	—	22.8	—	26.0	—	22.8	—	81	—	74	—	60	—	73	—
	Damietta	14.2	—	14.8	−1.2	13.9	−1.2	14.6	−0.9	22.7	—	24.6	+0.6	26.9	+1.5	24.1	+1.5	82	—	74	+ 2	62	+ 2	75	+ 2
	Port Said (A)	13.8	−1.0	14.3	−1.2	13.3	+1.2	14.2	−1.0	24.0	+1.0	25.2	+1.1	27.5	+1.3	24.8	+0.9	77	+ 3	73	+ 3	62	+ 1	74	+ 4
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	12.3	—	14.9	−1.7	14.0	−1.5	14.7	−1.5	20.4	—	21.8	+0.2	28.6	+1.0	22.2	+0.8	84	—	85	+ 6	53	+ 4	82	+ 6
	Mansoura	14.4	—	14.8	−1.4	13.4	−1.3	14.5	−1.3	21.1	—	23.5	+1.1	29.8	+0.9	23.0	+1.2	75	—	75	— 1	48	+ 4	74	0
	Tanta	13.4	—	13.8	−2.0	12.2	−2.2	13.5	−1.5	16.3	—	23.0	+1.3	29.7	+0.5	21.8	+0.5	88	—	75	— 6	44	— 1	78	— 1
	Shebin el Kom	14.4	—	15.2	−1.0	13.1	−1.7	14.6	+0.3	20.3	—	21.8	+1.1	29.1	−0.2	23.2	+0.9	88	—	82	+ 6	43	+ 2	73	+ 5
	Zagazig	13.9	—	14.3	−2.3	12.7	−2.1	14.1	−1.9	20.0	—	22.1	−0.6	29.8	+0.3	23.6	+1.7	—	—	81	+ 3	48	0	75	— 5
	Zaher (A)	14.5	—	15.4	—	13.4	—	14.4	—	20.7	—	22.9	—	30.5	—	24.0	—	84	—	75	—	41	—	71	—
	Wadi el Natrun	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Abu-Sueir (A)	14.3	—	14.9	—	13.0	—	14.5	—	20.7	—	22.8	—	30.7	—	24.3	—	79	—	74	—	37	—	66	—
Cairo Area	Cairo (A)	13.5	−1.9	14.6	−1.5	12.5	−1.7	14.1	−1.3	21.0	+1.2	23.0	+1.4	30.4	+1.3	24.5	+0.8	78	+ 1	71	+ 1	36	— 1	62	+ 4
	Almaza (A)	14.1	−1.1	14.3	−1.5	12.4	−1.4	13.8	−1.4	21.4	+1.9	22.9	+2.0	30.6	+1.8	25.1	+1.6	77	— 3	72	— 1	38	— 2	61	0
	Mostafa Helmi (A)	13.2	—	13.6	—	11.7	—	13.0	—	20.0	—	21.5	—	29.1	—	23.6	—	80	—	71	—	37	—	62	—
	Giza	14.8	—	15.1	−0.8	13.4	−0.4	14.4	−0.7	21.2	—	22.3	+1.4	30.3	+0.8	24.6	+1.7	87	—	76	— 4	39	— 2	62	— 4
	Helwan	—	—	14.6	−1.7	12.4	−1.5	13.6	−1.6	—	—	23.3	+1.7	30.4	+1.1	25.2	+0.8	—	—	66	— 1	35	+ 3	56	+ 6
Upper Egypt	Fayoum	14.4	—	14.9	−1.5	12.6	−0.9	13.4	−1.7	21.1	—	23.2	+1.2	31.0	+0.8	25.0	+1.4	—	—	69	— 1	36	+ 2	56	— 1
	Beni Suef	14.2	—	14.8	−1.0	12.9	−0.3	13.7	−0.7	—	—	22.5	+0.2	32.7	+1.4	25.0	+1.5	67	—	69	+ 3	33	0	58	+ 3
	Minya (A)	12.2	−2.2	13.2	−2.1	11.5	−1.8	12.2	−1.9	19.2	+0.8	22.1	+1.1	32.0	+1.2	23.2	+1.2	78	+ 4	73	+ 3	34	+ 2	62	+ 3
	Asyoût (A)	12.7	—	14.0	−1.2	11.7	−0.9	12.7	−0.6	22.6	—	23.0	+0.7	30.7	+1.0	26.9	+2.1	52	—	60	— 5	37	— 3	45	—10
	Nag Hammadi	12.0	—	13.7	−0.9	10.7	−1.1	11.6	−1.1	22.2	—	24.6	+0.4	33.2	+1.8	25.2	+1.1	67	—	67	+ 7	42	+ 2	64	+ 3
	Qena	—	—	13.2	−0.8	10.5	−0.6	11.3	−0.7	22.8	—	25.1	+2.0	34.2	+0.6	27.7	+1.4	58	—	58	+ 1	39	+ 3	51	+ 3
	Luxor (A)	11.1	−0.6	12.5	−0.7	9.7	−0.7	10.6	−0.8	23.5	+2.2	27.1	+1.7	35.2	+1.7	28.5	+1.6	49	+ 2	45	0	26	— 1	41	+ 2
	Aswan	10.5	—	12.3	−1.1	8.6	−1.3	9.9	−1.2	25.8	—	28.6	+2.8	38.6	+2.4	30.8	−0.4	43	—	41	+ 1	20	— 1	29	0
Western Desert	Siwa	14.1	−2.1	14.9	−2.0	13.8	−1.7	13.9	−1.7	20.6	+1.6	20.4	+0.6	30.1	+0.4	24.9	+0.9	63	+ 3	70	+ 8	34	+ 5	45	+ 3
	Bahariya	14.0	—	14.8	−2.3	12.6	−2.4	13.7	−2.3	20.3	—	21.8	+0.5	31.4	+1.5	25.3	+1.7	69	—	69	+ 1	30	— 6	41	— 8
	Farafra	15.2	—	16.3	—	14.0	—	15.1	—	20.2	—	20.8	—	31.3	—	25.9	—	48	—	54	—	27	—	30	—
	Dakhla	13.0	—	13.9	−1.5	11.7	−1.0	12.1	−1.8	21.4	—	23.4	+0.7	34.6	+2.7	27.5	+1.0	49	—	48	— 1	24	— 5	36	0
	Kharga	10.5	—	11.7	−3.0	9.4	−2.9	10.1	−3.2	22.9	—	25.0	+0.9	35.0	+1.8	27.7	+0.6	40	—	46	— 7	21	—10	27	—13
Red Sea	Suez	—	—	14.9	−0.3	12.8	−1.6	14.0	−0.3	—	—	23.6	+1.1	31.3	+1.7	26.0	+1.6	—	—	72	— 1	38	— 3	61	— 2
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	11.5	—	12.6	−0.4	10.8	−0.3	11.5	−0.2	22.6	—	26.8	+2.0	29.9	+2.5	25.9	+0.6	61	—	56	0	53	—13	59	— 1
	Quseir	—	—	12.3	−0.7	11.3	−1.0	11.6	−0.6	—	—	28.2	+0.7	29.7	+0.7	27.0	+0.6	—	—	54	+ 4	60	— 1	68	+ 5

TABLE A. 2—SURFACE CLIMATOLOGICAL DATA
OCTOBER 1957

Districts	Station	Air Temperature (°C)												Rainfall in mms.						Mean Evaporation Piche (mms)
		Mean Max. (A)	Dev. from Normal	Mean Min. (B)	Dev. from Normal	Daily Mean A+B / 2	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No. of days with amount of rain			
							Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				≥ 0·1	≥ 1.0	≥ 10.0	
Mediterranean	Sallum	28·1	+0.4	19.1	+2.0	23.6	32.7	12	25.0	19	16.2	18	21.8	13	8.6	5.3	13	2	2	0	7.1
	Sidi Barrani ...	26.7	—0.1	17.9	+0.4	22.3	30.2	24	23.7	19	15.0	18	23.9	8	11.1	5.0	21	2	3	0	6.2
	Mersa Matruh (A)	27.1	0.0	16.9	—0.1	22.0	31.4	12	22.5	19	14.4	18	19.5	10·12	41.8	22.9	13	2	6	1	6.0
	Dabaa	26.9	—0.1	17.3	+0.2	22.1	29.1	8	21.7	19	13.2	17	22.0	11	65.2	24.0	19	0	3	3	5.2
	Alexandria (A)	27.5	—0.3	19.3	+1.6	23.4	31.5	7	24.6	17	15.3	23	24.4	9	16.4	6.5	21	3	4	0	4.7
	Kom el Nadura	27.8	—0.7	21.0	+0.6	24.4	30.4	27	24.7	17	17.7	21	23.9	9	22.7	9.4	21	4	3	0	5.7
	Dekheila (A)	27.2	—	18.9	—	23.0	31.0	27	23.7	17	14.5	23	23.3	8·9·31	9.2	4.2	16	4	3	0	5.6
	Damietta	28.4	+0.3	19.9	+1.1	24.2	32.8	28	25.8	20	16.5	21.23	23.0	6	6.8	3.8	29	1	3	0	3.9
	Port Said (A)	29.3	+2.1	22.9	+1.1	26.1	33.7	28	26.6	20	19.0	22	25.2	8	0.4	0.2	19.20	2	0	0	4.8
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour ...	30.0	+0.4	18.1	+1.1	24.0	35.6	8	25.3	17	15.8	21	19.9	7,20,30	14.5	14.4	15	1	0	1	3.0
	Mansoura	31.0	+0.7	19.1	+1.6	25.0	36.0	8	26.0	20	16.0	21	22.0	7	5.5	3.0	19	0	3	0	3.0
	Tanta	31.1	+1.0	17.6	+2.4	24.3	35.7	8	27.8	20	14.0	23	21.7	7	4.9	2.5	29	4	2	0	4.2
	Shebin el Kom ...	29.8	—0.8	19.1	+2.6	24.4	34.4	8	25.6	20	16.7	23	22.9	8	15.1	10.4	17	3	2	1	3.7
	Zagazig	31.0	+0.6	18.0	+1.7	24.5	35.7	28	26.0	20	16.0	18·21,22	21.5	8	5.0	2.5	20	1	3	0	3.9
	Zaher (A)	31.1	—	19.2	—	25.2	35.3	7	27.5	20	17.0	25	22.7	7	4.7	4.4	13	1	1	0	8.7
	Wadi el Natrun	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Abu Sueir (A)	31.5	—	18.7	—	25.1	36.3	28	28.1	22	15.4	17	23.0	8	1.4	1.4	13	0	1	0	9.9
Cairo Area	Cairo (A)	31.1	+1.3	19.5	+1.6	25.3	35.9	7	25.8	20	16.7	23	23.8	7	1.0	1.0	19	0	1	0	8.3
	Almaza (A)	31.6	+1.3	19.7	+1.6	25.6	35.7	7	26.7	20	17.0	18	23.6	7	0.6	0.6	19	1	0	0	7.3
	Mostafa Helmi(A)	29.8	—	17.9	—	23.8	34.3	8	23.9	20	14.5	21	22.0	7·8	6.4	4.0	13	0	2	0	11.4
	Giza	31.6	+1.5	18.0	+2.4	24.8	35.5	28	25.5	20	14.7	22	23.2	8	1.0	1.0	19	0	1	0	—
	Helwan	31.1	+1·0	20.1	+1.7	25.6	37.2	7	26.5	20	16.8	21	22.4	8	tr.	tr.	20·31	0	0	0	9.3
Upper Egypt	Fayoum	32.0	+0.7	18.8	+1.7	25.4	37.0	6	25.3	20	14.7	21	22.4	8	0.6	0.6	14	1	0	0	5.1
	Beni Suef ...	33.5	+1.8	17.4	+1.8	25.4	37.8	6	29.1	21	14.1	24	20.6	9	tr.	tr.	13,18,20	0	0	0	5.1
	Minya (A)	32.7	+1.5	17.0	+1.1	24.8	37.2	7	27.5	18	13.0	22	20.8	8	6.7	6.5	20	1	1	0	7.2
	Asyoût (A)	31.8	+0·8	19.9	+1.8	25.8	37.5	7	26.1	21	16.1	22	23.5	8	tr,	tr.	20	0	0	0	11.7
	Nag Hammadi ...	34.6	+1.8	18.9	+1.6	26.8	39.0	7,9	30.2	21·22	15.1	22	22.1	9	0	0	—	0	0	0	4.1
	Qena	35.3	+0.1	20.6	+1.4	28.0	42.6	8	31.4	16	15.6	22	23.6	29	0	0	—	0	0	0	8.9
	Luxor (A)	36.5	+1.4	19.7	+1.8	28.1	43.4	8	31.5	23	15.3	22	23.0	7·10	0	0	—	0	0	0	10.0
	Aswan	39.8	+2.8	23.0	+1.2	31.4	46.4	7	33.2	17	19.0	17	26.8	10	0	0	—	0	0	0	10.4
Western Desert	Siwa	31.2	+0.2	17.8	+1.7	24.5	37.2	3	22.0	19	12.1	29	21.9	2	9.0	7.0	18	1	2	0	8.8
	Bahariya	32.5	+1.8	16.5	+0.7	24.5	38.0	8	27.0	20	12.4	21	20.8	8	6.0	6.0	19	0	1	0	6.3
	Farafra	32.4	+0.4	16.9	+1.8	24.6	37.0	7,8	27.0	21	12.6	21	21.9	8	10.6	10.6	19	0	0	1	12.5
	Dakhla	35.6	+2.6	16.6	—1.3	26.1	41.8	9	28.7	21	10.3	24	24.2	10	0	0	—	0	0	0	13.9
	Kharga	35.8	+1.9	19.0	+0.2	27.4	42.2	8	30.4	22	12.0	22	26.2	9	tr.	tr.	20	0	0	0	13.2
Red Sea	Suez	32.5	+1.6	19.1	+0.1	25.8	38.4	6	28.0	17	15.5	22,23	21.8	7	3.5	2.0	21	3	1	0	8.6
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada ...	30.9	+2.7	20.3	+0.5	25.6	35.2	7	28.3	18	17.0	24	23.0	5,6,11	tr.	tr,	20,30	0	0	0	14.0
	Quseir	31.1	+0.6	23.9	+0.8	27.5	34.9	8	28.9	17	21.2	17	26.3	11	0.9	0.9	30	1	0	0	13.4

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

OCTOBER 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandrising or Dustrising	Duststorms or Sandstorms	Gales
Sallum...	4	0	0	2	0	0	0	0
Sidi Barrani	5	0	0	0	0	0	0	0
Mersa Matruh (A)	9	0	0	1	0	0	1	0
Alexandria (A)	7	0	1	3	1	2	0	0
Port Said (A)	2	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	1	0	0	1	1	0	0	0
Cairo (A)	1	0	0	0	1	0	1	0
Almaza (A)	1	0	0	0	1	0	0	0
Mostafa Helmi(A)	2	0	0	0	2	0	0	0
Minya (A)	2	0	0	0	0	0	0	0
Asyoût (A)	0	0	0	0	0	0	1	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan...	0	0	0	0	0	1	0	0
Siwa	3	0	0	0	0	0	0	0
Hurghada	0	0	0	1	0	0	0	0
Quseir...	1	0	0	0	0	0	0	0

TABLE A 4.—NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

OCTOBER 1957

STATION	Calm	Variable	Unrecorded	Wind Speed in Knots	Number of occurrences of wind blowing from the ranges of direction indicated in degrees from the north												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	
Mersa Matruh (A) ...	79	22	0	1—10	57	75	52	27	17	35	34	51	64	12	16	37	477
				11—27	13	22	12	15	8	9	4	15	27	8	9	24	166
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**70**	**97**	**64**	**42**	**25**	**44**	**38**	**66**	**91**	**20**	**25**	**61**	**643**
Alexandria (A) ...	33	42	5	1—10	84	155	106	62	23	5	4	13	21	16	21	60	570
				11—27	27	20	9	2	—	—	—	—	9	10	4	13	94
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**111**	**175**	**115**	**64**	**23**	**5**	**4**	**13**	**30**	**26**	**25**	**73**	**664**
Port-Said (A) ...	0	6	4	1—10	51	128	135	7	1	3	4	9	24	56	47	95	560
				11—27	18	33	25	23	1	—	—	1	13	14	11	35	174
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**69**	**161**	**160**	**30**	**2**	**3**	**4**	**10**	**37**	**70**	**58**	**130**	**734**
Cairo (A) ...	12	41	63	1—10	90	81	127	71	15	4	7	28	18	25	40	57	563
				11—27	4	9	31	9	—	—	—	3	5	3	—	1	65
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**94**	**90**	**158**	**80**	**15**	**4**	**7**	**31**	**23**	**28**	**40**	**58**	**628**
Almaza (A) ...	6	10	0	1—10	105	189	27	31	9	15	11	28	26	31	31	70	573
				11—27	25	76	25	1	—	1	5	7	—	—	2	12	154
				28—47	—	1	—	—	—	—	—	—	—	—	—	—	1
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**130**	**266**	**52**	**32**	**9**	**16**	**16**	**35**	**26**	**31**	**33**	**82**	**728**
Minya (A) ...	99	10	102	1—10	315	63	3	1	1	8	11	3	1	1	9	80	496
				11—27	25	6	1	—	—	—	—	—	—	1	—	4	37
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**340**	**69**	**4**	**1**	**1**	**8**	**11**	**3**	**1**	**2**	**9**	**84**	**533**
Luxor (A) ...	48	0	0	1—10	21	41	26	37	41	64	61	17	20	50	110	194	682
				11—27	—	5	3	—	—	2	—	—	—	—	1	3	14
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**21**	**46**	**29**	**37**	**41**	**66**	**61**	**17**	**20**	**50**	**111**	**197**	**696**
Siwa	110	2	0	1—10	16	15	55	100	85	43	20	4	26	36	33	13	446
				11—27	11	5	21	30	38	22	8	3	6	13	16	13	186
				28—47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**27**	**20**	**76**	**130**	**123**	**65**	**28**	**7**	**32**	**49**	**49**	**26**	**632**
Hurghada	3	49	4	1—10	53	56	12	6	28	18	6	4	3	52	153	73	464
				11—27	28	—	—	—	—	—	—	—	—	3	53	139	223
				28—47	—	—	—	—	—	—	—	—	—	—	—	1	1
				> 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**81**	**56**	**12**	**6**	**28**	**18**	**6**	**4**	**3**	**55**	**206**	**213**	**688**

N.B.—No. recording charts for wind during this month at Sidi Barrani, since the Dynes Anemobiograph has been transferred to a new building.

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A) — OCTOBER 1957

Pressure Surface (millibar)	Heights of Pressure Surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	7	1008mb	1011mb	1002mb	7	21.7	23.0	20.3	7	15.1
1000	7	135	164	88	7	21.3	22.8	20.1	7	14·2
850	7	1537	1559	1495	7	18.1	20.3	16.2	7	2.7
700	7	3164	3185	3117	7	6.1	7.4	4.4	6	— 5.5
600	7	4406	4443	4360	7	— 2.0	3.0	— 7.0	5	—11.8
500	7	5824	5875	5767	7	—15.8	— 9.7	—17.3	4	—25.5
400	6	7473	7559	7433	6	—26.1	—21.7	—29.0	4	—35.7
300	6	9469	9610	9338	6	—42·1	—37.7	—44.7	—	—
200	5	12040	12202	11974	5	—59.9	—54.5	—61.8	—	—
150	2	13709	13710	13708	2	—65.9	—64.8	—67.0	—	—
100	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N=Number of observations of specified pressure surfaces.

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A) — OCTOBER 1957

Pressure Surface (millibar)	Heights of Pressure Surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.		Highest	Lowest	obst. at. 1200 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	8	1006mb	1010mb	1002mb	8	30·3	31·8	28·4	8	13·9
1000	8	123	150	106	8	29·7	31·5	27·3	8	13·4
850	8	1537	1552	1511	8	17·3	20.4	12·7	8	3.1
700	8	3166	3177	3143	8	7.0	8·9	5·2	8	— 5·9
600	8	4412	4424	4398	8	— 1.9	1·5	— 5·5	6	—11·5
500	8	5835	5866	5806	8	—11·9	— 8·4	—14·7	5	—21·2
400	8	7509	7580	7459	8	—24·4	—21·4	—27·7	5	—30·7
300	8	9532	9640	9455	8	—46·8	—35·8	—46·3	2	—45·3
200	7	12200	12338	12077	7	—57·4	—45·0	—60·4	—	—
150	6	14144	14833	13837	6	—63.7	—61·3	—66·2	—	—
100	5	16431	16625	16292	5	—66·0	—64·8	—68·5	—	—
60	4	23937	24000	23828	4	—51·3	—50·0	—52·2	—	—
40	3	26586	26630	26528	3	—43·9	—41·4	—45·4	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N=Number of observations of specified pressure surfaces.

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

OCTOBER 1957

STATION	Time of observation U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm (N)	Pressure mb (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Dir. (000-360)	Speed in knots
CAIRO (A)	0000	4090 (7)	625 (7)	— 9·9 (5)	4590	587	—	3600	662	—3.5	11584 (2)	173 (2)	—62.1 (2)	12004	117	—58·7	11160	230	—65.5	13000	168	250	88
MERSA MATRUH (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ASWAN	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = Total number of observations.

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

1200 U.T. — OCTOBER 1957

STATION	Time of observation U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm. (N)	Pressure mb. (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Direction 000.360	Speed in knots
CAIRO (A)	1200	4150 (8)	611 (8)	—9.2 (6)	4620	520	—	3770	649	—6·8	13826 (5)	160 (5)	—62·5 (5)	15250	110	—68.2	11400	230	—55.5	14350	144	310	87
MERSA MATRUH (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ASWAN	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

N = Total number of observations.

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

CAIRO (A).— 0000 U.T. — OCTOBER 1957

Pressure Surfaces mb.	Wind between Specified ranges of Direction (000-360)																						Calm	Total Number of observations (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			
Surface ...	1	8	—	—	3	7	1	9	1	2	—	—	—	—	—	—	—	—	1	3	—	—	—	—	—	7	6
1000 ...	1	8	—	—	2	5	1	3	1	3	—	—	—	—	—	—	—	—	1	3	—	—	—	—	—	6	5
850 ...	—	—	3	16	1	8	—	—	—	—	2	15	1	10	—	—	—	—	—	—	—	—	—	—	—	7	14
700 ...	1	15	—	—	—	—	1	17	—	—	1	15	—	—	2	25	—	—	1	16	—	—	—	—	—	6	19
600 ...	—	—	—	—	—	—	—	—	—	—	1	15	1	16	—	—	2	20	—	—	1	10	—	—	—	5	16
500 ...	—	—	—	—	—	—	—	—	—	—	—	—	1	28	1	43	1	18	1	11	—	—	1	13	—	5	23
400 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	39	—	—	—	—	1	24	—	4	35
300 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	45	—	—	1	33	—	—	1	28	—	4	38
200 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	64	1	43	—	—	—	—	—	3	57
150 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

CAIRO (A).— 1200 U.T. — OCTOBER 1957

Pressure Surfaces mb.	Wind between Specified ranges of Direction (000-360)																						Calm	Total Number of observations (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			
Surface ...	—	—	2	11	1	15	2	16	—	—	—	—	—	—	—	—	1	12	—	—	—	—	2	9	—	8	12
1000 ...	—	—	2	11	2	16	—	—	—	—	—	—	—	—	—	—	1	12	—	—	—	—	2	9	—	7	12
850 ...	1	15	1	21	1	7	1	17	—	—	—	—	—	—	1	10	2	17	—	—	—	—	—	—	—	7	15
700 ...	1	18	1	17	—	—	1	10	—	—	—	—	—	—	1	16	2	18	—	—	—	—	1	10	—	7	15
600 ...	1	14	—	—	—	—	1	14	—	—	—	—	—	—	2	22	2	15	1	24	—	—	—	—	—	7	18
500 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	21	3	26	—	—	2	16	—	—	—	7	22
400 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	39	2	29	3	26	1	28	—	—	—	7	29
300 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	38	3	37	—	—	—	—	—	7	38
200 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	33	2	36	2	56	—	—	—	5	43
150 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGROMETEOROLOGICAL STATION AT GIZA

OCTOBER 1957

Mean air temperature of this month was about 2°C above normal, its mean relative humidity was 3% below normal and its mean vapour pressure was about 1mm. above normal. Mean air temperature of October 1956 was about normal, its mean relative humidity was 2% below normal and its mean vapour pressure was about 1mm. below normal. Extreme maximum temperature of October 1957 was 2°C more, and extreme minimum temperature was 3°C more than the previous October.

Total rainfall was 1mm. while no rain fell in the previous October.

Maximum soil temperature at the depth of 0.3cm in the dry field was 1°C less than the previous October while the minimum was 4°C higher. Generally, mean soil temperatures in different depths were slightly higher than those of October 1956.

Mean wind speed at 2 mtrs height was 1.7 mtrs./sec. against 2.1 mtrs./sec. for October 1956.

Total sunshine duration was 11% less than previous October; while total sun and sky radiation was practically the same for the two months.

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METERS ABOVE THE GROUND

GIZA—OCTOBER 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed meters per second		
	Max.	Min.	Mean of the day*	Day time mean	Night time mean	>90%	>80%	Relative %	Vapour pressure (mms)	Mean of the day	Day time mean	Night time mean
1	33.2	19.0	25.4	28	23	4	8	36	13.1	2.7	4.1	1.6
2	33.0	18.2	24.8	28	24	6	8	40	14.3	1.2	1.7	0.8
3	31.4	18.3	24.1	27	23	7	10	47	15.5	1.8	2.5	1.4
4	31.5	18.1	24.7	28	23	7	10	49	16.6	2.0	2.8	1.5
5	32.6	20.3	25.3	28	25	0	7	50	17.5	2.8	3.4	2.3
6	34.7	20.9	26.6	29	24	2	11	41	16.4	2.8	3.4	2.4
7	35.3	22.2	27.6	29	25	5	11	52	20.7	2.4	2.7	2.2
8	35.4	23.2	27.5	30	26	6	9	42	16.6	1.2	2.3	2.0
9	33.4	21.2	25.6	28	25	6	11	40	14.5	2.0	2.3	1.8
10	32.2	19.4	24.3	27	23	4	12	46	15.6	1.6	2.4	1.0
11	31.4	18.5	23.9	26	22	3	10	47	15.2	1.3	1.8	0.9
12	30.7	17.7	23.3	26	22	7	10	47	14.8	1.4	2.2	0.8
13	31.5	18.0	23.1	26	22	6	10	46	14.1	1.3	2.1	0.8
14	30·5	16.4	22.4	26	21	6	10	42	12.6	1.2	2.1	0.6
15	30.4	15.4	22.3	25	20	7	11	40	12.2	1.0	1.7	0.5
16	30.0	15.6	22.1	25	19	6	9	41	12.0	0.9	1.9	0.3
17	29.6	15.4	21.7	24	20	8	10	40	11.5	1.0	1.8	0.5
18	30.0	16.6	22.0	24	19	8	8	43	12.4	0.9	1.9	0.2
19	32.7	21.8	25.4	28	23	10	3	36	12.3	1.7	1.2	2.0
20	25.5	19.8	22.2	24	22	2	4	69	15.9	1.3	1.9	0.8
21	29.3	14.8	20.8	25	20	2	9	33	9·6	1.3	1.9	0.9
22	28.8	14.7	21.0	24	18	4	7	52	13.1	0.8	1.4	0.3
23	29.2	15.6	21.6	25	21	6	8	39	11.1	1.0	1.5	0.7
24	30.0	15.2	22.2	26	20	9	8	38	11.6	1.6	2.7	0.7
25	30.5	16.2	23.0	26	22	5	10	42	13.3	2.3	3.3	1.5
26	31.4	16.5	23.4	27	22	4	9	39	12.9	2.5	3.5	1.8
27	33.6	21.2	26.4	29	24	0	7	27	10.0	3.1	3.9	2.5
28	35.5	14.8	24.3	29	21	0	6	24	9.9	1.5	2.6	0.7
29	31.4	15.2	22.7	26	22	0	4	44	14.8	1.3	2.9	0.2
30	33.5	19.4	25.5	29	23	0	8	33	12.1	3.2	4.5	2.3
31	30.8	19.8	23.9	26	23	10	12	58	18.1	2.2	2.4	2.1
Mean	31.6	18.0	23.8	27	22	—	—	43	13.9	1.7	2.5	1.2
Highest	35·5	23·2	—	—	—	—	—	—	20.7	—	—	—
Date	28	8	—	—	—	—	—	—	7	—	—	—
Lowest...	25·5	14.7	—	—	—	—	—	24	9.6	—	—	—
Date	20	22	—	—	—	—	—	28	21	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+Min}{4}$

Humidity at 2 metres above ground:

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 71%

Lowest relative humidity ... ... 23% on 28th ... ...

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 14.9 mms.

Highest value of vapour pressure ... ... 20.7 mms. on 7th ... ...

Lowest value of vapour pressure ... ... 9.3 mms. on 27th ... ...

TABLE C 2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES

GIZA—OCTOBER 1957.

DATE	Piche Evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 meters height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	15	0	605	10.8	24	24	24	24	18	14	6	0	0
2	12	0	587	10.8	24	24	24	24	21	13	6	0	0
3	11	0	592	10.4	24	24	24	24	20	11	3	0	0
4	11	0	595	10.6	24	24	24	24	20	12	4	0	0
5	12	0	593	10.8	24	24	24	24	24	13	5	0	0
6	13	0	588	10.7	24	24	24	24	24	15	7	0	0
7	10	0	504	8.0	24	24	24	24	24	14	6	0	0
8	11	0	546	9.6	24	24	24	24	24	15	7	0	0
9	10	0	545	9.3	24	24	24	24	24	11	5	0	0
10	9	0	532	8.4	24	24	24	24	22	9	3	0	0
11	9	0	493	7.9	24	24	24	24	19	10	0	0	0
12	9	0	506	7.9	24	24	24	24	18	10	0	0	0
13	8	0	476	8.0	24	24	24	24	18	7	0	0	0
14	8	Tr.	517	9.6	24	24	24	24	18	7	0	0	0
15	7	0	449	9.4	24	24	24	24	14	8	0	0	0
16	9	0	536	9.5	24	24	24	24	15	8	0	0	0
17	8	0	517	9.8	24	24	24	24	14	6	0	0	0
18	10	Tr.	439	6.3	24	24	24	24	15	7	0	0	0
19	8	1.0	333	3.5	24	24	24	24	24	11	4	0	0
20	6	Tr.	199	1.9	24	24	24	24	22	0	0	0	0
21	8	0	519	10.5	24	24	24	24	12	6	0	0	0
22	7	0	414	9.0	24	24	24	24	16	7	0	0	0
23	8	0	435	9.0	24	24	24	24	17	7	0	0	0
24	11	0	468	8.9	24	24	24	24	16	11	0	0	0
25	11	0	491	9.0	24	24	24	24	19	10	0	0	0
26	13	0	463	8.6	24	24	24	24	20	11	4	0	0
27	17	0	485	9.1	24	24	24	24	23	12	7	0	0
28	13	0	362	8.3	24	24	24	24	16	10	6	0	0
29	11	0	450	8.4	24	24	24	24	16	10	2	0	0
30	16	0	469	9.1	24	24	24	24	23	12	6	0	0
31	7	0	338	4.0	24	24	24	24	23	9	0	0	0
TOTAL ...	318	1.0	15046	67	744	744	744	744	599	306	81	0	0
Mean	10.3	0.0	485	.6	24	24	24	24	19.3	9.9	2.6	0	0

Percentageof total hours of sunshine duration occurred with respect to the total hours possible...75 %

Maximum amount of rainfall in one day (24 hours) ... ... 1.0 mms. on 19th ... ...

TABLE C 3.—EXTREME SOIL TEMPERATURES AT DIFFERENT DEPTHS AND MINIMUM AIR TEMPERATURE AT 5 cms. ABOVE GROUND

GIZA—OCTOBER 1957.

Extreme soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry soil	51.0	15.0	49.5	15.5	45.0	17.0	38.5	21.0	33.5	24.0	31.5	25.5	31.0	28.0	30.5	28.5	28.5	28.0	—	—
Wet soil	38.0	14.0	35.5	14.0	35.5	15.0	31.5	17.0	29.5	19.0	27.0	21.5	26.0	23.0	25.0	24.0	24.0	24.0	—	—
Grass	39.0	17.0	—	—	—	—	27.5	19.0	26.5	20.0	26.5	22.5	26.5	24.0	26.5	24.5	—	—	—	—

Minimum air temperature (°C) at 5 cms. above ground:

Lowest minimum temperature over dry soil ... ... 10.5 °C on 28th.

" " " " wet soil ... ... 11.3 °C on 28th.

" " " grass ... ... 7.8 °C on 28th.

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VOLUME 48 NUMBER 11

NOVEMBER 1957

MINISTRY OF WAR–METEOROLOGICAL DEPARTMENT
CAIRO–EGYPT

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CONTENTS

Note: Refer to volume 48 number 1 for the list of stations appearing in the report and for explanatory notes on the tables.

GENERAL SUMMARY OF WEATHER CONDITIONS

EGYPT—NOVEMBER 1957

Changeable with three variant prevailing heat waves
Scattered heavy rain and thunder over Delta area on the 29th.

The main features were :

(*a*) Low monthly rainfall amounts over the western part of the Mediterranean coast and scattered localities in Lower and Middle Egypt. Abnormal monthly rainfall over Alexandria.

(*b*) Two prevailing heat waves.

(*c*) Frequent transit of shallow minor disturbances over East Mediterranean in general and northern Egyptian coast in particular.

General description of weather :

For the month as a whole, weather was rather warm the first half, mild the second half.

Three rainy and rather cold periods were distinguished. On the 29th, rainfall was heavy in particular and accompanied by thunderstorms over Lower Egypt and Cairo area.

The mean barometric pressure was belownormal in general, while both mean maximum and mean minimum temperatures were above normal.

The Mean rainfall was below normal over the Mediterranean and Red Sea districts and above normal elsewhere.

The mean daily relative humidity was 62.4% at Alexandria (Kom el Nadura), 67.7% at Giza and 57.1% at Helwan.

Pressure and wind :

The general features of the pressure distribution during this month were:

(*a*) A deep northern depression over Baltic Sea proceeding NE wards.

(*b*) An intense anticyclone over Caspian Sea and Black Sea.

(*c*) The subtropical high pressure belt.

(*d*) Shallow secondary depressions developing over W and NW Mediterranean.

(*e*) A shallow local secondary over Gulf of Serte.

The barometric pressure over Egypt experienced frequent and consecutive falls below normal within the transit perio ls of the shallow coastal secondaries over Gulf of Serte, while otherwise it was slightly obove normal.

During this month, five coastal secondary depressions were distinguished, and the barometric pressure over Egypt was minimum round the 5th, 12th, 20th, 24th and 27th. The last fall in the barometric pressure was remarkably below normal over Lower and Middle Egypt.

The prevailing winds of this month were light/moderate N^ly in gereral. Calm winds were rather frequent over Upper Egypt and scattered parts of Western Desert in the early morning Fresh/strong winds were experienced occasionally over Lower Egypt.

Temperature :

During the 1st half of this month, two heat waves prevailed with their peaks round the 4th and 12th respectively, and the weather was accordingly rather warm Lower Egypt, rather hot Upper Egypt.

On the 4th, the maximum daily temperature reached 31.8°C at Mersa Matruh (A) i.e (7°C above normal), 33°c at Ezbekiya i.e (6°c above normal), and 35°c at Minya i.e (7°c above normal). Aswan reported 41.5°c on the 5th i.e (8.5°C above normal) which was the highest maximum temperature reported all over the Republic during this month.

The third heat wave, the weakest was only detected over Upper Egypt, where maximum temperature was slightly above normal most of the 2nd half of the month. Elsewhere weather was mild in general.

Minimum temperature oscillated slightly round normal in the northern coast, slightly below normal Upper Egypt and slightly above normal Middle Egypt.

Precipitation :

The monthly rainfall exceeded its normal over scattered parts of Delta, though it was mostly below normal elsewhere. Four rainy periods has been distinguished over Lower Egypt viz : (3rd–7th), (14th–16th), (19th–21st) and (25th–30th). Only during the last period, rain extended southerly up to Western Desert, Nile Valley and Red Sea Coast.

On the 29th, rainfall was heavy in general and exceeded 10 mms over scattered parts of Lower Egypt and Western Desert. Showers of hail and thundery activity developed occasionally over Alexandria, Port Saïd and Cairo Area on the same day.

Miscellaneous weather phenomena :

(*a*) Snow was reported at Mersa Matruh and Alexandria on the 29th.

(*b*) Thunderstorms occurred at Alexandria on both the 28th and 29th, at Port Saïd, Abu Sueir, Cairo, Almaza and Mostafa Helmi on the 29th.

(*c*) Early morning fog patches developed at Abu Sueir on the 10th, Minya on the 30th.

Cairo on 29/7/1958.

M. F. Taha
Director General
Meteorological Department

NOVEMBER 1957

District	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (°C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	16.2	—	16.5	— 1.1	15.2	— 1.4	16.0	— 1.1	18.3	—	17.9	+ 0.1	24.3	+ 1.1	20.6	+ 1.1	65	—	65	— 1	42	— 6	61	— 2
	Sidi Barrani	15.6	—	16.2	— 1.0	15.1	— 1.2	15.8	— 1.1	17.0	—	17.1	+ 1.1	23.8	+ 1.7	20.0	+ 1.6	74	—	74	+ 7	51	+ 2	66	+ 3
	Mersa Matruh (A)	16.4	— 0.8	16.8	— 0.8	15.6	— 1.3	16.5	— 1.0	16.2	—	17.5	— 0.7	23.6	+ 1.4	18.5	— 1.1	79	—	75	— 1	48	—17	72	— 2
	Dabaa	—	—	16.4	—	15.2	—	16.0	—	—	—	17.7	+ 0.8	23.4	+ 1·1	19.2	+ 1.2	—	—	78	+ 6	52	— 4	72	— 2
	Alexandria (A)	16.1	— 0.6	16.6	— 0.7	15.3	— 0.7	16.3	— 0.9	17.5	+ 0.9	19.2	+ 0.7	24.7	+ 1.5	19.7	+ 1.4	76	— 7	72	— 4	52	— 2	68	— 8
	Kom el Nadura	16.7	—	17.1	— 0.3	15.7	— 0.5	16.6	— 0.6	19.9	—	20.6	+ 0.5	23.3	— 0.4	20.5	+ 0.4	67	—	64	— 6	56	— 2	67	— 3
	Dekheila (A)	16.3	—	16 5	—	15.5	—	15.9	—	17.4	—	18.9	—	23.3	—	19.7	—	76	—	72	—	53	—	68	—
	Damietta	16.6	—	16.7	— 0.1	15.5	— 0.3	16.3	— 0.0	19.2	—	19.2	— 0.1	23.2	+ 0.5	20.1	+ 0.6	83	—	80	+ 2	59	— 3	75	— 3
	Port Said (A)	15·7	— 0.5	16.1	— 0.7	15.0	— 0.6	15.9	— 0.6	20.1	+ 0.6	20.7	+ 0.5	23.8	+ 1.0	21.2	+ 0.6	76	— 2	73	— 1	60	— 2	69	— 4
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	16.3	—	16.6	— 1.2	15.3	— 1.3	16.2	— 1.2	17.4	—	18.0	+ 0.9	24.7	+ 0.4	18.6	+ 0.5	84	—	84	0	53	0	78	— 1
	Mansoura	16.3	—	16.6	— 0.9	14.9	— 1.3	16.1	— 1.1	17.0	—	18.2	+ 0.2	25.5	+ 0.5	18.9	+ 0.2	77	—	78	— 1	49	— 1	75	— 3
	Tanta	15.9	—	16.2	— 1.0	14.6	— 0.9	15.9	— 0.7	15.0	—	17.7	+ 0.2	25.1	+ 0.4	17.9	+ 0.2	85	—	79	— 4	46	— 5	76	— 4
	Shebin el Kom	16.3	—	17.2	— 0.6	15.0	— 1.2	16.4	— 0.8	16.5	—	16.8	+ 0.4	24.7	— 0.4	19.0	+ 0.9	86	—	85	+ 6	45	— 1	74	+ 2
	Zagazig	15.5	—	16.1	— 1.4	14.6	— 1.2	16.0	— 0.8	16.7	—	17.0	— 0.9	25.1	+ 0.1	19.0	+ 0.7	—	—	83	+ 1	51	— 2	76	— 5
	Zaher (A)	16.4	—	17.3	—	15.3	—	16.2	—	16.1	—	18.2	—	25.2	—	19.4	—	83	—	74	—	45	—	72	—
	Wadi el Natrun	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Abu-Sueir (A)	16.2	—	16.8	—	14.9	—	16.3	—	15.5	—	17.3	—	25.4	—	19.2	—	81	—	73	—	33	—	66	—
Cairo Area	Cairo (A)	15.9	— 0.9	16.6	— 1.1	14.5	— 1.5	16.1	— 1.1	16.7	+ 0.6	18.6	+ 1.4	25.0	+ 1.0	19.6	+ 0.5	75	— 1	68	— 4	39	— 5	63	0
	Almaza (A)	15.7	— 1.0	16.0	— 1.3	14.3	— 1.0	15.8	— 0.9	17.0	+ 0.3	18.5	+ 0.8	25.3	+ 0.5	20.2	+ 0.1	75	— 3	68	— 6	40	— 6	61	— 4
	Mostafa Helmi (A)	15.4	—	15.8	—	13.8	—	15.3	—	15.8	—	18.7	—	24.4	—	18.8	—	80	—	73	—	38	—	62	—
	Giza	16.3	—	16.8	— 1.1	14.9	— 1.0	15.9	— 1.3	15.4	—	16.9	+ 0.5	25.1	— 0.2	19.6	+ 1.0	92	—	82	— 3	40	— 5	66	— 7
	Helwan	—	—	16.7	— 0.5	14.4	— 0.6	15.8	— 0.6	—	—	18.1	+ 0.6	25.0	+ 0.3	20.4	+ 0.2	—	—	67	— 3	39	+ 1	57	+ 2
Upper Egypt	Fayoum	16.7	—	17.3	— 0.2	14.6	— 0.6	15.4	— 0.9	17.4	—	17.1	— 0.4	25.0	— 0.8	19.7	+ 0.7	—	—	77	+ 5	43	+ 4	63	— 1
	Beni Suef	16.0	—	17.0	— 0.9	14.9	— 0.6	15.8	— 0.9	—	—	15.7	— 1.2	27.0	+ 0.6	19.2	+ 0.8	—	—	73	+ 6	39	+ 1	63	— 1
	Minya (A)	15·4	— 1.3	16.2	— 1.4	14.4	— 1.3	15.3	— 1.2	14·0	+ 0.4	16.6	+ 0.8	27.4	+ 1.4	18.3	+ 1.0	80	+ 5	71	— 2	32	— 4	60	— 2
	Asyoût (A)	15.4	—	16.8	— 0.8	14.0	— 1.0	15.4	— 0.9	18.0	—	17.2	— 0.1	27.1	+ 1.5	21.3	+ 2.0	46	—	55	—14	30	—12	42	—21
	Nag Hammadi	14.6	—	16.2	— 0.1	13.6	+ 0.1	14.6	— 0.0	—	—	19.7	+ 1.0	28.4	+ 0.8	20.0	+ 0.6	—	—	65	0	42	0	69	+ 2
	Qena	—	—	16.1	+ 0.1	13.3	+ 0.5	14.1	— 0.1	17.2	—	19.9	+ 1.4	28.3	+ 0.1	21.4	+ 0.7	62	—	57	+ 5	35	— 4	56	0
	Luxor (A)	14.1	— 0.1	15.5	— 0.4	12.5	— 0.6	13.7	— 0.6	17.0	+ 1.4	20.2	+ 1.1	29.9	+ 1.9	21.8	+ 1.3	57	+ 1	48	— 4	34	+ 2	49	+ 3
	Aswan	13.7	—	15.3	+ 0.1	11.6	— 0.2	13.1	0.0	20.0	—	22·6	+ 2.1	32.6	+ 2.5	24.7	— 0.3	48	—	45	— 3	25	— 2	34	+ 1
Western Desert	Siwa	15.7	— 1.8	16·7	— 2.1	15.0	— 2.5	15.6	— 2.1	15.3	+ 1·6	14·8	+ 1.3	26.0	+ 1.2	19.5	+ 1.4	59	— 2	68	+ 1	32	— 1	46	— 2
	Bahariya	15.9	—	16.8	— 1.4	14.2	— 1.7	15.4	— 0.5	15.4	—	15·9	— 1.0	27.1	+ 1.9	19.9	+ 1.0	65	—	66	— 2	31	—11	44	—12
	Farafra	17.1	—	18.2	—	15.8	—	16.3	—	15.5	—	15.7	—	27.5	—	20.2	—	49	—	52	—	27	—	38	—
	Dakhla	15.4	—	16.6	— 1.4	14.1	— 1.3	14.8	— 1.9	15.5	—	16.4	+ 0.6	29.9	+ 4.2	21.1	+ 0.9	58	—	56	— 3	20	—16	36	— 8
	Kharga	13.6	—	14.7	— 1.9	12.4	— 1.8	13.4	— 1.7	16.4	—	19.5	+ 1.0	29.6	+ 1.7	21.3	— 0.2	51	—	51	— 8	26	—10	36	—11
Red Sea	Suez	16.0	—	16.5	— 0.2	14.5	— 1.5	15.8	+ 0.2	19.2	—	18.6	0.0	25.7	+ 0.4	21.4	+ 0.9	69	—	72	— 2	43	— 4	58	— 7
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	14.1	—	15.2	— 0·1	13.0	— 0.3	14.1	— 0.1	18.1	—	22.4	+ 1.6	26.7	+ 2.0	21.1	— 0.3	58	—	51	— 1	43	—16	56	— 4
	Quseir	—	—	14.7	+ 0.1	13.5	+ 0.1	13.9	+ 0.1	—	—	24.0	+ 0.2	27.0	+ 0.7	24.2	+ 0.6	—	—	47	— 6	48	—14	57	— 7

TABLE A 2.—SURFACE CLIMATOLOGICAL DATA
NOVEMBER 1957

District	Station	Air Temperature (°C)												Rainfall in Millimetres						Mean Evaporation Piche (mms)
		Mean Max.		Mean Min.		Daily Mean $\frac{A+B}{2}$	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No. of days with amount of rain			
		Mean (A)	Dev. from Normal	Mean (B)	Dev. from Normal		Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				0.1	≥ 1·0	> 10.0	
Mediterranean	Sallum	25.4	+0.6	16.2	+2.3	20.8	34.0	11	21.1	28	11.4	30	20.7	11	5.5	3.9	27	0	2	0	8.3
	Sidi Barrani	24.6	+1.4	15.0	+1·5	19.8	33.4	11	20.6	28	11.1	30	21.0	5	6.7	3·8	28	0	3	0	6.4
	Marsa Matruh (A)	24.7	+1.3	14.0	+0.7	19.4	31.8	4	21.0	19·28	10.0	8	17.9	5	18.3	6.6	29	3	4	0	7.6
	Dabaa	24.3	+0.7	13.8	0.9	19.0	30.0	4	20.0	29	10.6	30	17.4	5	37.0	14·0	20	0	2	2	5.7
	Alexandria (A)	25.6	+1·4	15·7	+1.0	20.6	31.2	4	21.5	29	12.0	24	20.2	1	24.1	10·6	15	6	3	1	4.4
	Kom el Nadura	25.1	—0.3	17.6	+0.3	21.4	30.2	4	21.1	30	14.1	30	21.4	1	41.9	12·8	15	2	4	2	6.1
	Dekheila (A)	24.3	—	15·3	—	19.8	29.7	4	19.9	29	9.8	24	19.9	6	26.8	19·0	28	5	2	1	5.7
	Damietta	24.3	—0.3	15.9	+0.3	20.1	29.9	12	17.9	29	11.2	30	21.7	1	7.9	2.4	6	3	4	0	3.8
	Port Said (A)	25.3	+1.5	18.6	+0.3	22.0	28.8	12	18.4	29	14.7	29·30	22.9	1	11.5	8·0	29	2	3	0	4.3
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	26.0	+0.3	14·0	0.0	20.0	31.2	4	21.8	29	10.8	30	19.6	1	4.0	3.1	15	2	1	0	2.7
	Mansoura	26.7	+0.7	14.8	+0.4	20.8	31.5	12	23.0	16·29	10.8	30	19.2	1	23.7	12.0	29	0	1	2	2.7
	Tanta	26.4	+0.4	13.2	+0.9	19.8	31.4	4	22.0	19	9.6	24	19.7	1	2.7	1.3	28	3	1	0	3.8
	Shebin el Kom	25.5	—0·9	14.9	+1.8	20.2	29.7	12	21.8	19	12.3	30	21.1	1	7.0	3.4	29	0	3	0	3.4
	Zagazig	26.4	+0.1	13.8	+0.8	20.1	31.5	12	22.5	19.29	10.5	24	21.0	1	24.8	17.8	29	2	3	1	3.2
	Zaher (A)	25.8	—	14.7	—	20.2	30.5	4	20.7	29	11.4	24	21.0	1	12.5	11.9	29	1	0	1	7.0
	Wadi el Natrun	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Abu Sueir (A)	26.4	—	13.6	—	20.0	31.3	12	22.2	30	9.6	24	22.0	1	2.2	1·4	29	1	1	0	6.9
Cairo Area	Cairo (A)	25.9	+1.1	14.5	+0.6	20.2	31.6	4	21.6	30	10.5	24	21.0	1	18·9	18.5	29	1	0	1	7.8
	Almaza (A)	26.2	+0.6	15.4	+1.2	20.8	32.5	4	22.1	30	11.5	24	21.0	1	12.9	12.2	29	1	0	1	5.5
	Mostafa Helmi (A)	24.9	—	13.7	—	19.3	31.0	12	20.9	30	10.0	26	19.6	1	13.1	9·3	29	1	2	0	9.4
	Giza	26.4	+0.4	13.3	+1·2	19.8	32.4	4	22.9	29	9.3	18	20.8	1	5.4	5.0	29	1	1	0	—
	Helwan	25.8	+0.4	15.8	+0.9	20.8	32.8	4	20.4	29	11.9	30	21.5	1	9.7	7.5	29	0	2	0	6.9
Upper Egypt	Fayoum	25.7	—1.1	13.8	+0.5	19.8	31.4	4	22.6	16.18	10.3	30	21.3	1	1·0	1·0	30	0	1	0	3.2
	Beni Suef	27.5	+0.7	12.1	+0·7	19.8	34.1	4	24.2	18	9.1	30	19.7	1	tr.	tr	30	0	0	0	3.3
	Minya (A)	27.9	+1.3	11.6	+0.1	19.8	35.2	3	23.4	27	8.3	30	20.0	1	tr.	tr.	29	0	0	0	6.3
	Asyoût (A)	27.9	+1.7	14.5	+1.8	21.2	34.7	3	23.0	28	11.0	20	21.0	1	0	0	—	0	0	0	9.1
	Nag Hammadi	29.8	+1.0	13.0	+0.8	21.4	36.8	2	24.6	27	10.1	*	18.7	1	0	0	--	0	0	0	3.5
	Qena	29.8	—0.1	14.7	+0.9	22.2	36.3	2	24.4	29	10.0	30	22.0	1	0	0	—	0	0	0	5.9
	Luxor (A)	30.9	+1.8	13·5	+1.3	22.2	37.6	2.3	25.2	29	9.1	26	19.5	3	1.0	1·0	27	0	1	0	6.5
	Aswan	33.8	+3.0	17.1	+0.4	25.4	41.5	5	27.8	30	11.7	27	22.3	1	tr.	tr.	29	0	0	0	8.1
Western Desert	Siwa	26.8	+1.3	11.8	+1.2	19.3	34.4	11	21.0	19	7.8	17	18.5	3	1.2	1.2	30	0	1	0	7.7
	Bahariya	28.0	+1.9	11·4	—0.1	19.7	37.3	4	22.7	18	7.8	26	19.6	1	tr.	tr.	26	0	0	0	5.8
	Farafra	27.8	+1.8	12·4	+3.2	20.1	39.0	4	23.2	17	7.0	20·22	20.7	5	0	0	—	0	0	0	9.4
	Dakhla	30.7	+4.0	10·1	—2.0	20.4	39.4	4	24.2	17	5.2	20	17.3	5	tr.	tr.	27·28	0	0	0	9.3
	Kharga	30.7	+2.1	13.2	—0.1	22.0	38.8	4	25.2	27	8.5	30	21.4	3	2.0	2.0	27	0	1	0	8.7
Red Sea	Suez	26.6	0.0	14.3	—1.1	20.4	31.8	4·5	22.6	29·30	10.2	30	21.6	1	3.0	3.0	29	0	1	0	6.5
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	27.4	+2.2	16.0	+0.6	21.7	32.5	5	24.2	30	11.5	27	21.0	2·3	3.0	3.0	27	0	1	0	11.7
	Quseir	28.2	+0·5	20.1	+0.3	24.2	33.9	1	24.8	30	16.3	27	23.2	12	0	0	—	0	0	0	12.0

* More than three days.

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

NOVEMBER 1957

STATION	NUMBER OF DAYS OF OCCURRENCE							
	Rain	Snow	Hail	Thunder storms	Fog	Mist or Sandrising or Dustrising	Duststorms or Sandstorms	Gales
Sallum	2	0	0	0	0	0	0	0
Sidi Barrani	3	0	0	0	0	0	0	0
Mersa Matruh (A)	7	1	0	0	0	0	0	0
Alexandria (A)	10	1	0	2	0	0	0	0
Port Said (A)	5	0	0	1	0	0	0	0
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	2	0	0	1	1	0	0	0
Cairo (A)	2	0	0	1	0	0	0	0
Almaza (A)	2	0	0	1	0	0	0	0
Mostafa Helmi (A)	3	0	0	1	0	1	0	0
Minys (A)	0	0	0	0	1	2	0	0
Asyoût (A)	0	0	0	0	0	0	0	0
Luxor (A)	1	0	0	0	0	0	0	0
Aswan	0	0	0	0	0	0	0	0
Siwa	1	0	0	0	0	0	0	0
Hurghada	1	0	0	0	0	0	0	0
Qusoir	0	0	0	0	0	0	0	0

TABLE A 4.—NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

NOVEMBER 1957

STATION	Calm	Variable	Unrecorded	Wind Speed in Knots	Number of Occurrences of wind blowing from the ranges of directions indicated in degrees from the north												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	
Sidi Barrani	2	0	615	1-10	4	5	3	3	4	—	2	5	8	4	6	2	40
				11-27	4	2	7	8	3	8	—	9	9	4	2	1	57
				28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**8**	**7**	**10**	**11**	**7**	**8**	**2**	**14**	**17**	**8**	**8**	**3**	**103**
Mersa Matruh (A)...	27	9	5	1-10	22	11	13	29	56	34	17	54	51	28	14	37	366
				11-27	7	4	45	34	39	27	1	25	23	11	27	70	313
				28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**29**	**15**	**58**	**63**	**95**	**61**	**18**	**79**	**74**	**39**	**41**	**107**	**679**
Alexandria (A)...	18	27	2	1-10	88	83	74	90	71	12	7	16	33	11	38	65	588
				11-27	8	—	23	8	—	—	—	—	8	—	19	19	85
				28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**96**	**83**	**97**	**98**	**71**	**12**	**7**	**16**	**41**	**11**	**57**	**84**	**673**
Port-Said (A)...	1	16	4	1-10	67	46	72	34	13	10	15	18	44	83	36	64	502
				11-27	6	19	58	12	1	—	—	2	19	44	27	9	197
				28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**73**	**65**	**130**	**46**	**14**	**10**	**15**	**20**	**63**	**127**	**63**	**73**	**699**
Cairo (A)...	16	19	25	1-10	48	55	105	82	67	17	15	57	38	19	30	66	599
				11-27	—	4	20	13	2	—	2	7	4	2	5	2	61
				28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**48**	**59**	**125**	**95**	**69**	**17**	**17**	**64**	**42**	**21**	**35**	**68**	**660**
Almaza (A)...	3	10	4	1-10	59	136	36	51	27	13	62	43	22	27	35	45	556
				11-27	1	70	44	12	3	—	5	4	2	6	—	—	147
				28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**60**	**206**	**80**	**63**	**30**	**13**	**67**	**47**	**24**	**33**	**35**	**45**	**703**
Minya (A)...	57	82	396	1-10	127	18	4	2	—	2	—	—	—	—	4	14	171
				11-27	5	1	—	1	—	—	1	—	—	—	—	6	14
				28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**132**	**19**	**4**	**3**	—	**2**	**1**	—	—	—	**4**	**20**	**185**
Luxor (A)...	54	4	0	1-10	18	52	35	41	63	70	53	21	32	38	78	157	658
				11-27	—	—	—	—	—	1	—	—	—	—	—	3	4
				28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**18**	**52**	**35**	**41**	**63**	**71**	**53**	**21**	**32**	**38**	**78**	**160**	**662**
Siwa	124	0	0	1-10	22	4	7	62	102	39	8	7	5	39	56	37	388
				11-27	4	1	4	28	68	31	11	5	2	10	18	26	208
				28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**26**	**5**	**11**	**90**	**170**	**70**	**19**	**12**	**7**	**49**	**74**	**63**	**596**
Hurghada	2	21	2	1-10	53	38	16	4	9	10	7	5	1	97	227	83	550
				11-27	12	—	—	—	—	1	—	—	—	9	33	90	145
				28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥ 48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**65**	**38**	**16**	**4**	**9**	**11**	**7**	**5**	**1**	**106**	**260**	**173**	**695**

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A) 0000 U.T. — NOVEMBER 1957.

Pressure Surface (millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 UT.		Highest	Lowest	obs. at 0000 U.T		Highest	Lowest	obs. at 0000 U.T	
	N	Mean			N	Mean			N	Mean
Surface	24	1009 m	1012mb	1001mb	24	17.8	20.6	14.0	24	12.6
1000	24	146	172	79	24	17.3	21.8	14.2	23	12.3
850	24	1520	1553	1458	24	11.4	19.5	3.8	22	1.2
700	24	3117	3176	3055	24	2.9	8.6	0.4	9	— 6.3
600	24	4346	4420	4277	24	— 5.3	— 1.1	— 8.0	10	—12.9
500	24	5751	5846	5665	24	—14.8	—11.2	—17.3	9	—21.6
400	23	7396	7512	7292	23	—26.6	—21.7	—30.0	8	—32.2
300	18	9398	9534	9277	18	—40.7	—39.4	—45.4	—	—
200	13	12014	12117	11910	13	—58.3	—54.5	—62.1	—	—
150	4	13828	13887	13717	4	—64.7	—63.3	—66.0	—	—
100	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N=Number of observations of specified pressure surfaces.

CAIRO (A) 1200 U.T. — NOVEMBER 1957.

Pressure Surface (millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 UT.		Highest	Lowest	abs. at 1200U.T		Highest	Lowest	obs. at 1200 U.T	
	N	Mean			N	Mean			N	Mean
Surface	27	1008mb	1010mb	1002mb	27	23.9	29.0	20.2	27	11.4
1000	27	138	165	96	27	23.1	28.2	20.0	27	11.2
850	27	1522	1562	1466	27	10.9	18.0	6.9	24	1.3
700	27	3115	3186	3052	27	1.7	7.0	— 5.4	15	— 5.7
600	27	4340	4428	4237	27	— 3.5	0.4	— 9.5	9	—17.3
500	27	5745	5852	5626	27	—14.6	— 9.5	—18.8	7	—24.3
400	25	7400	7531	7249	25	—26.3	—22.5	—30.2	8	—32.1
300	18	9414	9568	9230	18	—41.1	—38.0	—45.0	—	—
200	8	12005	12127	11853	8	—58.0	—56.4	—59.5	—	—
150	6	13825	13918	13730	6	—62.8	—60.4	—67.7	—	—
100	3	16245	16368	16183	3	—66.9	—65.4	—67.7	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N = Number of observations of specified pressure surfaces.

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

MERSA MATRUH (A) 0000 U.T. — NOVEMBER 1957.

Pressure Surface (millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 U.T		Highest	Lowest	obs. at 0000 U.T		Highest	Lowest	obs. at 0000 U.T	
	N	Mean			N	Mean			N	Mean
Surface	26	1014 mb	1018 mb	1008 mb	26	16·1	19·4	13,0	26	13,0
1000	26	150	183	98	25	16.9	20.5	13.4	25	13·6
850	26	1524	1557	1462	26	10·4	17·0	6·0	26	2·8
700	26	3115	3178	3031	25	2·5	4·4	— 3·1	17	— 2.9
600	26	4340	4415	4246	26	— 6·0	— 2·8	— 9·1	12	—15.1
500	26	5740	5832	5631	26	—15·4	—11·5	—20·0	8	—23.6
400	26	7386	7495	7241	26	—27·7	—23·1	—30·2	9	—34·9
300	26	9388	9523	9192	26	—42·8	—38·0	—47·6	—	—
200	22	12028	12168	11792	22	—58·2	—55·0	—60·5	—	—
150	16	13815	13936	13685	16	—62·9	—59·3	—65·6	—	—
100	7	16315	16362	16241	7	—64·7	—60·8	—70·0	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N=Number of observations of specified pressure surfaces.

MERSA MATRUH (A) 1200 U.T. — NOVEMBER 1957

Pressure Surface (millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	29	1013mb	1017mb	1008mb	29	23.5	30.4	20.0	29	13.2
1000	29	146	176	99	29	22.4	28·8	18·9	29	12·6
850	29	1525	1556	1475	28	11.7	19.0	6.2	28	3.1
700	29	3126	3190	3061	28	2.9	6.5	— 1.2	17	— 8.5
600	29	4356	4433	4227	28	— 4.7	— 2.0	— 8.2	14	—13.3
500	29	5764	5852	5662	28	—14.0	— 9.8	—19.0	10	—23.0
400	28	7424	7524	7278	27	—26.0	—22.0	—31.9	5	—27.9
300	27	9432	9556	9242	27	—41.6	—38.1	—46.0	2	—46.1
200	23	12052	12211	11861	23	—58.0	—50.0	—61.7	—	—
150	23	13857	13997	13663	23	—63.4	—59.2	—67.9	—	—
100	23	16323	16434	16169	23	—65.6	—60.4	—68.5	—	—
60	23	19463	19550	19342	23	—60.6	—56.7	—66.0	—	—
40	21	22014	22082	21876	21	—57.2	—53.2	—65.4	—	—
30	17	23835	23945	23699	17	—54.3	—50.0	—62.1	—	—
20	9	26425	26582	26249	9	—51.1	—45.7	—61.0	—	—
10	—	—	—	—	—	—	—	—	—	—

N=Number of observations of specified pressure surfaces.

TABLE B1—UPPER AIR CLIMATOLOGICAL DATA

ASWAN 0000 U.T. — NOVEMBER 1957

Pressure Surface (millibar)	Heights of Pressure Surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.		Highest	Lowest	obst. at 0000 U.T	
	N	Mean			N	Mean			N	Mean
Surface	24	1001mb	1004mb	999mb	24	19·4	24·9	14·0	24	8·5
1000	22	150	174	140	22	19·5	25·2	14·1	22	8·7
850	24	1549	1575	1520	24	16.4	20·5	9.5	23	0.5
700	24	3167	3212	3101	24	5.9	10.6	— 1·3	15	— 5.2
600	24	4414	4465	4321	24	— 0.8	4.2	— 7·0	7	— 9·9
500	24	5846	5903	5729	24	— 9.9	—5·6	—15·2	8	—18·3
400	24	7528	7610	7374	24	—21·8	—17.6	—27.8	6	—27·8
300	24	9580	9679	9381	24	—37·6	—33.2	—42·0	6	—43.0
200	23	12261	12422	12011	23	—56.4	—49.9	—64.4	—	—
150	20	14047	14223	13787	20	—66.3	—60.0	—71.8	—	—
100	8	16453	16580	16316	8	—72·7	—68·9	—75.1	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N—Number of observations of specified pressure surfaces.

TABLE B 1—UPPER AIR CLIMATOLOGICAL DATA

ASWAN 1200 U.T. — NOVEMBER 1957

Pressure Surface (millibar)	Heights of Pressure Surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U T.		Highest	Lowest	obs. at 1200 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	25	1000mb	1002mb	997mb	25	32.4	39.9	26.5	25	10.5
1000	13	146	158	140	13	31.2	39.4	26.5	13	9.9
850	25	1565	1604	1521	25	20.3	26.4	14.6	21	1 2
700	25	3206	3272	3153	25	9.4	18.4	5.0	15	— 5.0
600	25	4464	4547	4398	25	1.6	5.4	— 5.5	6	— 8.1
500	25	5911	6001	5812	25	— 6.9	— 3.1	—10.3	7	—18.9
400	25	7609	7703	7495	25	—19.0	—16.4	—23.9	7	—31.7
300	24	9682	9773	9553	24	—35.0	—26.5	—40.4	4	—42.2
200	24	12388	12487	12213	24	—55.1	—52.2	—60.1	—	—
150	21	14186	14322	14009	21	—64.4	—56.1	—70.0	—	—
100	17	16638	16844	16459	17	—70.2	—65.0	—75.1	—	—
60	16	19698	19860	19559	16	—64.5	—56.0	—71.3	—	—
40	12	22230	22485	22111	12	—55.6	—46.5	—59.4	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N—Number of observations of specified pressure surfaces.

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

0000 U.T.—NOVEMBER 1957

Station	Time of obs. U.T.	Freezing Level									First Tropopause									Highest Wind Speed			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm. (*)	Pressure mb. (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Direction 000-360	Speed in knots
Cairo (A)	0000	3491	665	— 5.2	4240	616	—	2050	796	— 0.2	12000	206	—58.5	15250	119	—70.2	10370	253	—52·7	13850	150	260	115
		(24)	(24)	(8)							(4)	(4)	(4)										
Mersa Matruh (A)	0000	3389	678	— 6.5	4100	624	—	2600	740	— 9.3	13010	162	—62.7	16360	100	—70.0	10900	231	—56·6	14200	140	260	130
		(26)	(26)	(15)							(15)	(15)	(15)										
Aswan	0000	4190	618	— 8.9	4730	577	—	2760	732	—	13991	152	—67.0	14830	134	—70·0	12900	184	—58.0	17800	—	300	144
		(24)	(24)	(11)							(14)	(14)	(14)										

N = Total number of observations.

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

1200 U.T.—NOVEMBER 1957

STATION	Time of obs. U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb	Dew point °C	Height gpm	Pressure mb.	Dew point °C	Height gpm. (N)	Pressure mb. (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Direction (000-360)	Speed in knots
Cairo (A)	1200	3376	679	—7.4	4330	604	—	2420	756	— 3.3	11792	205	—57.2	13050	168	—60.4	10700	244	—53.0	10300	—	290	99
		(27)	(27)	(13)							(5)	(5)	(5)										
Mersa Matruh (A)	1200	3580	666	—9.6	4200	618	—	2750	734	— 8.3	15146	125	—66.5	17570	82	—68.8	12280	192	—60.4	13450	158	240	144
		(29)	(29)	(21)							(23)	(23)	(23)										
Aswan	1200	4824	573	—11.5	5490	530	—	3810	646	—11.1	14026	154	—65.3	16690	98	—75.9	12480	200	—53.6	13100	176	280	136
		(25)	(25)	(8)							(19)	(19)	(19)										

N — Total number of observations.

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

CAIRO (A) — 0000 U.T. — NOVEMBER 1957

Pressure Surfaces (millibar)	Wind between specified ranges of direction (000–360)																						Calm	Total Number of observations (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			
Surface ...	1	2	—	—	6	6	7	7	2	8	3	5	1	4	3	5	1	7	3	7	—	—	1	2	2	30	6
1000	1	2	1	5	6	6	5	10	1	8	2	6	2	4	3	6	1	7	2	8	—	—	1	2	1	26	6
850	3	6	1	8	1	5	2	8	—	—	—	—	—	—	2	16	4	11	1	16	5	13	5	10	1	25	11
700	2	14	—	—	1	4	—	—	—	—	—	—	—	—	—	—	6	26	8	23	6	13	2	22	—	25	20
600	2	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	30	10	27	4	24	1	13	—	23	25
500	1	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	31	13	32	2	28	1	9	—	23	30
400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	38	11	42	4	30	1	24	—	21	38
300	1	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	39	9	47	1	27	—	—	—	13	43
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	68	—	—	—	—	—	4	68
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

CAIRO (A). — 1200 U.T. — NOVEMBER 1957

Pressure Surfaces (millibar)	Wind between Specified ranges of Direction (000–360)																						Calm	Total Number of observations (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			
Surface ...	4	5	2	8	8	10	1	10	—	—	—	—	—	—	—	—	2	12	1	6	6	10	6	7	—	30	9
1000... ...	2	5	2	5	7	10	1	10	—	—	—	—	—	—	—	—	2	12	1	6	6	8	6	8	—	27	8
850... ...	3	7	4	9	1	12	2	6	—	—	—	—	—	—	3	11	5	10	3	16	4	17	2	8	—	27	11
700... ...	3	18	—	—	1	6	—	—	—	—	—	—	—	—	1	17	6	22	8	18	3	21	4	14	1	27	17
600... ...	3	22	—	—	—	—	1	5	—	—	—	—	—	—	—	—	7	28	10	24	3	22	1	19	—	25	24
500... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	41	11	27	4	30	4	24	—	25	30
400... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	39	13	41	4	32	1	26	—	19	38
300... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	46	6	46	2	54	1	35	—	12	46
200... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	90	1	61	1	27	—	3	59
150... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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).—0000 U.T.– NOVEMBER 1957

Pressure Surfaces (millibar)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of observations (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)$_m$			
Surface ...	1	8	—	—	4	5	1	3	6	9	1	6	2	2	4	7	1	14	3	12	2	13	1	8	4	30	7
1000... ...	1	13	1	11	1	2	1	11	3	11	2	5	2	2	4	9	1	9	3	11	—	—	2	13	3	24	8
850... ...	—	—	2	6	1	15	2	5	3	12	—	—	1	7	3	17	1	25	3	16	5	13	3	11	1	25	12
700... ...	3	10	2	20	—	—	1	5	—	—	—	—	—	—	1	14	3	28	8	14	2	17	3	22	1	24	16
600... ...	1	16	1	8	—	—	—	—	—	—	—	—	—	—	1	23	2	37	13	26	6	23	1	52	—	25	26
500... ...	1	45	—	—	—	—	—	—	—	—	—	—	—	—	1	37	2	33	12	29	7	40	2	37	—	25	34
400... ...	1	40	—	—	—	—	—	—	—	—	—	—	—	—	2	38	2	44	11	46	7	38	2	55	—	25	43
300... ...	1	79	—	—	—	—	—	—	—	—	—	—	—	—	1	85	3	46	10	61	5	48	1	60	—	21	58
200... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	37	7	77	2	60	—	—	—	10	70
150... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	73	—	—	—	—	—	3	73
100... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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)—1200 U.T. — NOVEMBER 1957.

Pressure Surfaces (millibar)	Wind between specified ranges of direction (000-360)																				Calm	Total number of observations (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	$(ff)_m$			
Surface ...	3	10	2	15	5	14	3	13	2	7	1	11	1	17	—	—	1	15	—	—	4	12	8	12	—	30	12
1000... ...	4	11	2	10	1	10	4	12	3	11	2	10	—	—	—	—	2	12	—	—	2	16	8	9	—	28	13
850... ...	1	6	2	9	—	—	1	7	1	4	2	12	1	10	2	7	4	14	5	10	3	16	6	14	—	28	12
700... ...	—	—	1	15	—	—	—	—	—	—	—	—	1	18	1	7	8	23	6	21	7	21	4	16	—	28	19
600... ...	—	—	—	—	1	13	—	—	—	—	—	—	1	20	—	—	4	27	13	24	7	23	2	12	—	28	23
500... ...	1	25	—	—	—	—	—	—	—	—	—	—	—	—	2	20	2	32	13	31	7	34	1	17	—	26	30
400... ...	—	—	1	32	—	—	—	—	—	—	—	—	—	—	—	—	1	20	15	51	6	37	—	—	—	23	41
300... ...	—	—	1	34	—	—	—	—	—	—	—	—	1	75	—	—	2	46	12	59	4	38	—	—	—	20	52
200... ...	—	—	1	58	—	—	—	—	—	—	—	—	—	—	1	98	—	—	4	42	1	93	1	35	—	8	57
150... ...	—	—	1	40	—	—	—	—	—	—	—	—	—	—	—	—	1	75	3	41	1	51	—	—	—	6	48
100... ...	—	—	1	34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	53	1	43	—	—	—	6	48
60... ...	—	—	1	21	—	—	—	—	—	—	—	—	—	—	—	—	3	21	—	—	—	—	—	—	—	4	21
40... ...	—	—	1	15	1	15	—	—	—	—	—	—	—	—	1	13	—	—	—	—	—	—	—	—	—	3	14
30... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

ASWAN. — 0000 U.T. — NOVEMBER 1957

Pressure Surfaces (millibar)	Wind between Specified ranges of Direction (000-360)																						Calm	Total Number of observations (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			
Surface ...	6	4	2	2	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21	30	1
1000... ...	5	4	1	3	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	22	1
850... ...	5	10	1	11	1	6	2	7	—	—	—	—	—	—	—	—	—	—	3	10	—	—	4	13	—	16	10
700... ...	1	21	2	10	—	—	—	—	—	—	1	4	—	—	2	12	—	—	3	16	5	15	3	18	—	17	15
600... ...	—	—	1	10	—	—	—	—	—	—	—	—	—	—	2	12	—	—	8	20	5	22	1	7	—	17	18
500... ...	1	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	33	12	30	2	22	—	—	—	17	29
400... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	42	2	29	1	23	—	17	39
300... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	77	12	48	2	48	1	53	—	16	56
200... ...	1	91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	73	4	59	—	—	—	15	70
150... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	87	4	83	3	53	—	—	—	8	72
100... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	61	—	—	—	—	—	4	61
60... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

ASWAN–1200 U.T. — NOVEMBER 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of Observations (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)$_m$			
Surface ...	3	5	6	3	2	7	—	—	—	—	—	—	—	—	—	—	—	—	1	8	—	—	2	5	16	30	2
1000... ...	1	7	4	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	7	13	2
850... ...	2	16	2	5	4	10	2	6	—	—	—	—	—	—	1	5	1	19	1	29	6	10	6	13	—	25	11
700... ...	—	—	1	8	3	11	—	—	—	—	1	4	—	—	1	4	1	18	7	22	7	13	4	23	—	25	16
600... ...	—	—	1	3	1	5	—	—	—	—	—	—	—	—	2	8	1	23	11	24	9	24	—	—	—	25	21
500... ...	—	—	1	6	—	—	—	—	—	—	—	—	—	—	1	4	2	18	17	32	4	24	—	—	—	25	27
400... ...	—	—	1	22	—	—	1	32	—	—	—	—	—	—	—	—	1	26	16	55	6	37	—	—	—	25	47
300... ...	—	—	1	26	—	—	1	26	—	—	—	—	—	—	—	—	1	60	14	57	5	45	—	—	—	22	52
200... ...	—	—	1	40	—	—	1	54	—	—	—	—	—	—	—	—	1	32	15	73	3	81	1	54	—	22	69
150... ...	—	—	1	40	—	—	1	52	—	—	—	—	—	—	—	—	1	91	13	82	2	57	—	—	—	18	76
100... ...	—	—	2	57	—	—	1	54	—	—	—	—	—	—	—	—	—	—	7	58	3	75	—	—	—	13	61
60... ...	—	—	—	—	1	13	—	—	—	—	—	—	—	—	1	24	2	26	4	22	1	48	1	13	—	10	25
40... ...	—	—	—	—	—	—	2	25	1	12	—	—	—	—	—	—	—	—	1	30	—	—	—	—	—	4	23
30... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGKOMETEOROLOGICAL STATION AT GIZA

NOVEMBER 1957

Mean air temperature of this month was 0.7 degrees above normal, 1.2 degrees more than November 1956. Its absolute maximum temperature was about 3 degrees less and its absolute minimum 2.6 degrees more than last year. Mean relative humidity of this month was slightly below normal, same as November 1956, while its mean vapour pressure was just normal. being 1mm more than previous November. Minimum relative humidity occurring in this month was 21%, 10% more than last year.

Thus, as air temperature and relative humidity are concerned, we can conclude that this month was more moderate than the corresponding month of last year.

Total rainfall was about 2 mms above normal, while in November 1956 only traces fell. Almost all the amount that fell in this month occurred on the 29th, about 2.5 mms of it fell in ten minutes only.

Maximum soil temperature at 0.3 cms depth in dry soil was 6.5 degrees lower than last November, while the minimum was 2.5 degrees higher. Maximum temperature at greater depths was generally higher by about 1 to 2 degrees, while the minimum at those depths was higher by about 0.5 to 1 degree than November 1956.

Mean wind speed at 2 metres was the same as last November.

Total sunshine duration was practically the same, while total sun+sky radiation was 1000 gm cal/cm^2 more.

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METRES ABOVE THE GROUND

GIZA — NOVEMBER 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed metres per second		
	Max.	Min.	Mean * of the day	Day time mean	Night time mean	>90%	>80%	Relative %	Vap. pres. (mms.)	Mean of the day	Day time mean	Night time mean
1	28.7	20·8	23.6	25	23	7	8	64	17.6	2.1	2.7	1.8
2	29.2	17.6	22.1	25	22	5	7	34	10.0	1.8	1.8	1.8
3	29.6	15.5	21.6	25	21	3	6	30	8·8	1.5	2.6	0.8
4	32.4	18.7	24.6	28	22	1	8	24	8.5	2.1	2.8	1.6
5	29.8	15.8	22.2	26	21	4	7	38	11.6	2.3	4.6	1.1
6	26.9	15.2	20.3	23	18	4	10	46	11.6	1.1	1.6	0.8
7	27.5	14.5	19.6	23	18	5	10	53	12.5	1.1	2.2	0.4
8	27.2	12.6	19.3	22	17	7	8	48	11.6	1.0	1·8	0.5
9	27.0	13.4	19.3	22	19	7	9	35	8.8	1.6	2.8	0.8
10	27.6	13.2	19.1	23	19	7	10	38	9.8	2.1	3.0	1.5
11	29.2	12.3	19.4	23	18	6	10	29	8.3	1.9	2.2	1·6
12	31.4	11.0	19.8	24	17	6	9	22	7.1	1.6	2·3	1 0
13	26.3	16.2	20.6	22	19	8	8	54	12.9	1·7	2.6	1.1
14	26.4	12·6	17.6	21	18	3	11	43	10.3	1.4	1.8	1.1
15	25.1	11.5	17.5	21	14	7	11	45	9.0	1.1	2.4	0.2
16	24.8	11·8	17.2	20	15	6	12	44	9.2	1.0	2.0	0.4
17	24.4	11.2	16.7	20	13	5	9	53	10.6	1.0	1.6	0.6
18	24.2	9.3	16.3	19	15	7	8	42	8.9	1.0	1.4	0.6
19	24.4	12.0	17.9	2	17	3	5	52	11.2	2.1	2.9	1.5
20	25.7	13.6	19.2	22	18	3	8	52	12.1	2.5	3.9	1.5
21	25.5	13.8	18.5	21	18	8	9	49	11.2	2.5	3.5	1.7
22	24.4	11·8	17.2	21	17	5	9	48	10.5	2.6	3.6	1.8
23	24.9	11.1	17.0	20	16	4	8	40	8.9	2.3	3.2	1.7
24	26.0	10.3	16.1	20	16	8	12	44	10.1	1.6	1.6	1.7
25	24.1	11.3	17.0	20	16	9	12	54	11.4	1.2	2.1	0.6
26	23.7	10.4	15.9	18	15	9	10	56	10.6	1.2	2·3	0.4
27	25.5	13.8	17.5	20	17	6	12	47	10.1	1.2	1.0	1.4
28	24.2	12.8	16.9	19	16	1	7	39	8.3	1.3	2.7	0.8
29	22.9	12.5	15.5	18	15	10	15	69	12.8	1.5	2.1	1.0
30	23.1	11.2	16.0	19	13	8	14	53	10.5	1.8	3.0	0.9
Mean	26.4	13·3	18.7	22	17	—	—	45	10.5	1.7	2.5	1.1
Highest	32.4	20.8	—	—	—	—	—	—	17.6	—	—	—
Date	4	1	—	—	—	—	—	—	1	—	—	—
Lowest...	22.9	9.3	—	—	—	—	—	22	7.1	—	—	—
Date	29	18	—	—	—	—	—	12	12	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+\text{Min.}}{4}$

Humidity at 2 metres above ground :

Mean daily relative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 76%

Lowest relative humidity ... ... 21% on 12th

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 11.4 mms.

Highest value of vapour pressure ... ... 17.6 mms. on ... ... 1st.

Lowest value of vapour pressure ... ... 7.1 mms. on ... ... 12th.

TABLE C 2.—EVAPORATION, RAINFALL, SOLAR+SKY RADIATION AND SUNSHINE DURATION. DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES.

GIZA—NOVEMBER 1957.

DATE	Piche evaporation (mms.)	Amount of rainfall (mms.)	Solar+Sky radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 metres height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	9	0	343	4.5	24	24	24	24	24	7	0	0	0
2	10	0	382	5.7	24	24	24	24	19	8	0	0	0
3	12	0	395	6.0	24	24	24	24	17	7	0	0	0
4	15	0	454	10.0	24	24	24	24	18	11	4	0	0
5	10	0	449	10.2	24	24	24	24	14	7	0	0	0
6	7	0	301	2.9	24	24	24	24	12	3	0	0	0
7	7	Tr.	380	8.2	24	24	24	24	11	1	0	0	0
8	7	0	420	9.9	24	24	24	17	15	1	0	0	0
9	10	0	357	8.3	24	24	24	20	13	3	0	0	0
10	10	0	435	9.8	24	24	24	19	12	5	0	0	0
11	9	0	427	9.8	24	24	24	19	11	6	0	0	0
12	10	0	447	10.1	24	24	24	17	11	6	0	0	0
13	7	0	352	6.5	24	24	24	24	13	0	0	0	0
14	6	0	402	9.6	24	24	24	17	8	0	0	0	0
15	7	0	417	8.9	24	24	24	14	9	0	0	0	0
16	6	0	371	7.8	24	24	24	13	6	0	0	0	0
17	6	0	373	8.6	24	24	24	15	6	0	0	0	0
18	7	0	378	9.2	24	24	22	16	7	0	0	0	0
19	8	0	254	3.0	24	24	24	21	9	0	0	0	0
20	9	0	386	9.6	24	24	24	22	12	0	0	0	0
21	9	0	385	9.2	24	24	24	19	10	0	0	0	0
22	9	0	397	9.4	24	24	24	19	8	0	0	0	0
23	8	0	389	9.4	24	24	24	16	8	0	0	0	0
24	5	0	352	8.1	24	24	24	15	8	0	0	0	0
25	5	0	394	9.2	24	24	24	15	7	0	0	0	0
26	6	Tr.	377	9.1	24	24	24	15	6	0	0	0	0
27	5	Tr.	243	2.7	24	24	24	15	7	0	0	0	0
28	7	0	391	9.2	24	24	24	13	5	0	0	0	0
29	3	5.0	306	6.4	24	24	24	10	3	0	0	0	0
30	6	0.4	353	8.4	24	24	24	15	5	0	0	0	0
TOTAL	**235**	5.4	**11310**	239.7	720	720	718	**554**	**314**	**65**	**4**	0	0
Mean	7.6	0.2	**377**	8.0	24	24	23.9	18.5	10.5	2.2	0.1	0	0

Percentage of total hours of sunshine duration occurred with respect to the total hours possible... 75%
Maximum amount of rainfall in one day (24 hours)... ... ... 5.0 mms. on ... ... 29th.

TABLE C 3.—EXTREME SOIL TEMPERATURES AT DIFFERENT DEPTHS AND MINIMUM AIR TEMPERATURE AT 5 cms. ABOVE GROUND

GIZA — NOVEMBER 1957

Extreme Soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry Soil	43.5	9.0	42.0	9.5	40.0	10.5	33.0	15.0	29.0	17.5	27.5	20.0	28.5	23.5	28.5	25.5	28.0	26.5	—	—
Wet Soil	29.5	10.0	29.5	10.0	29.5	11.0	26.0	12.5	25.0	15.0	24.0	16.5	23.5	19.0	24.0	21.0	24.0	22.5	—	—
Grass	27.5	12.5	—	—	—	—	23.5	14.5	23.0	15.5	24.0	18.0	24.0	20.5	24.5	22.0	—	—	—	—

Minimum air temperature (°C) at 5 cms. above ground:

Lowest minimum temperature over dry soil ... ... 4.9 °C on 18th.
" " " " wet soil ... ... 7.0 °C on 18th.
" " " " grass ... ... 2.6 °C on 12th & 18th

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VOLUME 48 NUMBER 12

DECEMBER 1957

MINISTRY OF WAR-METEOROLOGICAL DEPARTMENT
CAIRO-EGYPT

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CONTENTS

Note : Refer to volume 48 number 1 for the list of stations appearing in the report and for explanatory notes on the tables.

GENERAL SUMMARY OF WEATHER CONDITIONS

EGYPT - DECEMBER 1957

Changeable with a remarkable warm period between the 13th and 17th, Low rainfall amounts in general

The main features were :

(a) A moderate cold wave during the first third of the month.

(b) Abnormal high maximum temperature between the 13 th and 17th.

(c) Few exceptions of abnormal high rainfall amounts in the northern coast.

General description of weather :

The weather started this month mild in general, but soon temperature experienced a gradual fall and reached its minimum on the 7th due to the prevalence of a moderate cold wave which ended on the 12th. Light rain was reported at scattered parts in the northern coast excluding Alexandria where more than 10mms. fell daily between the 5th and 9th.

Between the 13th and 17th, the Egyptian districts enjoyed a warm delightful period, and from the 18th till the end of the month, weather was almost mild and rain was light in general over the northern coast excluding its western part where 53.5 mms fell on the 20th at Mersa Matruh, which was the absolute maximum fall in one day during this month in Egypt.

The mean atmospheric pressure was slightly above normal apart from the Western Desert, the mean maximum temperature was also above its normal in general excluding Lower Egypt and Red Sea, while the mean minimum temperature was almost slightly below normal with the exception of Lower Egypt district.

The mean monthly rainfall exceeded its normal in the Mediterranean and Lower Egypt districts, but was slightly below normal in Upper Egypt and Red Sea districts.

The mean daily relative humidity was 63.3% at Alexandria (Kom el Nadura), 53.0% at Helwan and 69.4% at Giza.

Pressure and Wind :

On the 1st a Cyprus low appeared over East Mediterranean, while high pressure established, in the east over Caspian Sea, in the west between the British Isles and Western Desert of Egypt. Up till the 3rd, this low filled up rapidly, but on the 4th it deepened appreciably and maintained its intensity afterwards. Between the 6th and 8th, the Cyprus low filled up gradually while remained stationary. During this period, the barometric pressure was generally below normal and the prevailing W/SW winds were moderate/fresh Lower Egypt; light/moderate elsewhere. Strong winds were infrequent over Lower Egypt. Gales were reported at Mersa Matruh on the 1st, 5th and 6th, and at Abu Sueir on the 6th.

Between the 9th and 16th, high pressure established over East Mediterranean and adjacent land areas ; while deep secondary depressions traversed West Mediterranean NE wards. Accordingly the barometric pressure over Egypt experienced a remarkable rise above normal. A 2nd pronounced rise in the atmospheric pressure was observed between the 21st and 29th, when high pressure rebuilt again over Middle East and East Mediterranean. The prevailing light/moderate winds of the last two periods were W/SW in extreme west, N/NE Lower Egypt and Nly elsewhere. Calms were rather frequent in the extreme south during night and early morning.

On the 17th a deep secondary depression developed over Central Mediterranean with a secondary shallow low over East Mediterranean. The whole system amalgamated afterwards and formed a Cyprus depression which filled up on the 20th. The atmospheric pressure suffered a second general fall below normal and the light/moderate prevailing N/NW flow backed to S/SE in advance of the secondary low. Calms were still frequent in the extreme south during night and early morning.

On the 29th, a West Mediterranean secondary depression proceeded rapidly eastwards and reached East Mediterranean round the 31st, causing a deep fall in the barometric pressure over Egypt and a pronounced short backing in the prevailing winds.

Temperature :

This month started with a prevailing moderate cold wave which persisted till the 12th and reached its intensity round the 7th. On that day the lowest maximum temperature reached 16.2°c at Alexandria, 17.5°c at Cairo, 19°c at Nag Hammadi.

Between the 13th and 19th, maximum temperature continued above normal, and Lower Egypt enjoyed a rather warm period, while Upper Egypt experienced a rather heat wave. On the 17th, Mersa Matruh reported a maximum temperature of 29.3°c (9.6°c above normal), Ezbekiya 31°c (9°c above normal), and Nag Hammadi, 31.6°c (9.2°c above normal) which were the highest maximum temperatures during this month.

For most of the rest of the month, maximum temperature was slightly below normal. Minimum temperature variations were more or less in accordance with maximum temperature variations.

Precipitation :

Rainfall was generally below normal and with few exceptions (over Mersa Matruh, Alexandria and Damanhour), it exceeded remarkably its normal.

Three rainy periods has been distinguished over the northern coastal area, viz (1st—9th), (19th—21st) and (23rd—26th). The daily rainfall exceeded 10mms at Alexandria area between the 5th and 9th, over Sidi Barrani, Mersa Matruh and Dalaa on the 20th. The maximum fall in one day during this month was 53.5 mms. at Mersa Matruh on the 20th.

Miscellaneous weather phenomena :

(*a*) Thunderstorms occurred at Alexandria on the 6th, 8th and 9th.

(*b*) Early morning fog patches developed at Alexandria on the 12th, 14th, 15th and 22nd, at Cairo on the 21st, at Almaza on the 15th, at Mostafa Helmi on the 13th and 14th and at Minya on the 12th.

M. F. Taha
Director General
Meteorological Department

Cairo on 11/10/1958

TABLE A 1.—SURFACE CLIMATOLOGICAL DATA

DECEMBER 1957

District	Station	M.S.L. Atmospheric Pressure (mb)								Dry Bulb Temperature (°C)								Relative Humidity (%)							
		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.		0000 U.T.		0600 U.T.		1200 U.T.		1800 U.T.	
		Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal	Mean	Dev. from Normal
Mediterranean	Sallum	18·0	—	18·7	+0·9	17·3	+0·5	18·2	+0·8	13·3	—	12·0	—1·4	19·7	+0·5	15.9	+0·3	55	—	62	—6	39	—11	49	—15
	Sidi Barrani	17·6	—	18·1	+0·1	17·2	+0·2	18·0	+0·3	12·0	—	10·6	—1·3	18·8	+0·6	14.7	+0·1	69	—	73	+2	50	—4	63	—2
	Mersa Matruh (A)	18·4	+0·5	18·8	+0·6	17·8	+0·6	18·8	+0·7	11·2	—	11·7	—1·5	18·4	—0·3	13.1	—2·2	77	—	72	—4	51	—12	73	+1
	Dabaa	—	—	18·5	—	17·5	—	18·4	—	—	—	10·8	—1·5	18·9	+0·5	13.6	—0·7	—	—	76	0	49	—7	71	—2
	Alexandria (A)	18·4	+1·1	19·0	+1·2	17·9	+1·0	18·8	+1·2	12·7	—0·3	12·5	—0·9	19·9	+0·6	14.8	+0·2	80	—2	79	—2	57	+1	74	—4
	Kom el Nadura	19·1	—	19·4	+1·1	18·3	+1·3	19·0	+1·0	15·0	—	14·6	—0·6	18·2	—1·3	16.3	—0·1	70	—	70	—1	58	0	65	—2
	Dekheila (A)	18·6	—	19·0	—	18·0	—	18·5	—	13·3	—	12·8	—	18·8	—	15.0	—	70	—	73	—	55	—	68	—
	Damietta	—	—	19·2	+1·2	18·1	+1·5	18·9	+1·7	12·9	—	12·9	—0·7	19·1	+0·1	15.0	+0·2	87	—	83	0	58	—5	79	+6
	Port Said (A)	18·5	+1·4	18·9	+1·2	17·9	+1·4	18·7	—1·3	15·0	0·0	15·0	—0·1	19·3	+0·7	16.2	0·0	74	—6	71	—7	58	—6	73	+4
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	18·7	—	19·1	+0·5	18·0	+0·9	18·3	+0·7	12·1	—	12·3	+0·4	19·9	+0·1	13.8	—0·5	84	—	82	—1	56	+2	80	+1
	Mansoura	19·2	—	19·2	+0·6	18·1	+1·4	18·9	+1·1	12·1	—	11·3	—0·7	20·4	—0·1	14.0	—0·4	77	—	80	—1	51	—3	78	—1
	Tanta	18·7	—	19·0	+0·4	17·7	+0·5	18·8	+0·8	9·8	—	11·1	—0·8	20·2	0·0	12.7	—0·7	80	—	78	—3	55	—5	77	—2
	Shebin el Kom	19·2	—	19·8	+1·1	18·1	+1·0	19·2	+1·2	11·0	—	11·5	—0·2	19·3	—1·0	13.4	—0·4	84	—	83	+4	50	+1	77	+3
	Zagazig	18·6	—	20·5	+1·7	19·2	+2·0	18·9	—0·7	11·5	—	10·8	—1·1	20·3	+0·1	14.5	+0·6	89	—	85	—3	51	—6	78	—4
	Zagazig (A)	19·1	—	20·1	—	18·1	—	19·1	—	11·7	—	12·3	—	20·6	—	14.8	—	76	—	79	—	46	—	70	—
	Wadi el Natrun	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Abu Sueir (A)	19·1	—	19·8	—	18·2	—	19·4	—	10·5	—	11·2	—	21·0	—	14.3	—	76	—	79	—	39	—	65	—
Cairo Area	Cairo (A)	18·8	+0·6	19·6	+0·7	17·8	+0·6	19·1	+0·8	12·5	—0·1	12·9	+0·1	20·2	+0·8	15.3	+ 0·2	68	—7	67	—7	41	—7	61	—6
	Almaza (A)	18·8	+1·2	19·4	+1·2	17·9	+1·3	18·9	+1·3	12·5	—0·5	12·8	0·0	20·7	+0·6	15.6	—0·1	65	—7	64	—7	37	—10	57	—6
	Mostafa Helmi (A)	19·2	—	19·8	—	17·9	—	19·2	—	11·3	—	11·0	—	19·6	—	14.3	—	68	—	70	—	38	—	62	—
	Giza	18·1	—	18·7	—0·4	17.0	—0·5	17·7	—0·6	10·2	—	10·7	—0·4	20·2	—0·4	14.0	+0·5	82	—	77	—6	41	—6	67	—10
	Helwan	—	—	20·2	+1·0	17·9	+0·9	19·4	+1·1	—	—	12·4	+0·1	20·2	+0·6	15.9	+0·3	—	—	65	—2	38	—3	51	—4
Upper Egypt	Fayoum	19·6	—	20·4	+1·0	18.2	+1·0	18·0	—0·3	12·0	—	10·8	—0·7	20·1	—0·8	14.5	+0·5	81	—	79	+7	42	0	60	—9
	Beni Suef	18·4	—	20·4	+1·0	18·2	—0·2	19·2	+0·9	—	—	10·2	—1·0	21·7	+0·7	14.3	+0·6	—	—	70	0	45	—1	66	—4
	Minya (A)	19·1	+0·7	19·8	+0·6	18·0	+0·8	18·7	+0·6	8·2	—1·1	8·9	—1·2	21·4	+0·1	12.8	—0·5	81	+7	81	+6	38	0	67	+3
	Asyoût (A)	18·9	—	20·3	+0·9	17·6	+0·8	18·8	+0·8	11·8	—	10·7	—1·8	21·5	+1·0	15.7	+1·4	55	—	57	—14	32	—12	47	—19
	Nag Hammadi	18·2	—	19·1	+0·8	16·9	+1·1	17·9	+0·7	12·8	—	13·2	+0·1	22·6	0·0	14.9	0·0	—	—	68	—1	44	—1	73	+2
	Qena	—	—	19·7	+0·9	16·5	+0·9	17·5	+0·5	11·2	—	13·6	+0·9	23·5	+0·7	16.0	+0·1	—	—	62	—5	35	—5	57	—3
	Luxor (A)	17·5	+ 0·8	19·0	+1·0	16·0	+0·8	17·3	+0·8	11·2	0·0	12·3	—1·0	24·2	+0·7	16.0	—0·2	65	+3	64	+4	41	+3	55	+4
	Aswan	17·1	—	18·7	+0·5	15·2	+0·6	16·6	+0·2	14·6	—	15·9	+0·7	26·3	+1·4	19.6	—0·2	54	—	55	+2	27	—3	38	+1
Western Desert	Siwa	19·2	—0·1	19·8	—0·3	18·7	+0·1	19·2	—0·2	8·5	—1·1	7·6	—0·9	20·1	+0·4	13.2	—0·5	67	—1	70	—2	35	—5	52	—4
	Bahariya	19·5	—	20·3	+0·1	17·8	+0·1	19·0	—0·8	9·2	—	8·5	—3·0	21·1	+0·8	14.4	+0·4	65	—	73	+5	30	—13	48	—11
	Farafra	21·1	—	21·9	—	19·7	—	20·5	—	9·1	—	7·8	—	21·1	—	14.2	—	46	—	55	—	28	—	38	—
	Dakhla	19·5	—	20·3	+0·4	18·2	+1·2	18·7	+0·4	9·6	—	9·1	—1·0	22·9	+1·5	15.7	+0·1	60	—	61	—1	26	—11	43	—1
	Kharga	17·5	—	18 3	—0·7	16·2	—0.6	17·0	—0·8	10·5	—	12·8	+0·1	23·2	+0·4	15.4	—0·6	59	—	61	—2	33	—6	45	—8
Red Sea	Suez	18·8	—	19·9	+1·2	18·1	+0·8	19·4	+1·9	13·8	—	13·6	—0·4	20·6	0·0	16.3	0·0	67	—	70	—2	43	—6	60	—3
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	17·2	—	18·4	+1·4	16·4	+1·3	17·4	+0·6	13·4	—	16·0	+0·6	22·3	+0·9	17.5	+0·4	57	—	49	—9	42	—13	54	—9
	Quseir	—	—	17·8	+1·1	16·8	+1·4	17·0	+1·1	—	—	17·5	—1·8	23·0	0.0	20·4	+0·3	—	—	46	—9	48	—9	55	—8

TABLE A 2.—SURFACE CLIMATOLOGICAL DATA
DECEMBER 1957

District	Station	Air Temperature (°C)												Rainfall in Millimetres						Mean Evaporation Piche (mms.)
		Mean Max.		Mean Min.		Daily Mean A+B / 2	Maximum				Minimum				Total Amount	Max. fall in one day	Date	No. of days with amount of rain			
		Mean (A)	Dev. from Normal	Mean (B)	Dev. from Normal		Highest	Date	Lowest	Date	Lowest	Date	Highest	Date				≥ 0.1	≥ 1.0	≥ 10.0	
Mediterranean	Sallum	20·8	+ 0·5	10.8	+ 0·5	15·8	31·4	16	16.2	8	6.3	8	17·2	17	3.5	1·4	7	5	2	0	8·4
	Sidi Barrani	19·6	+ 0·2	9.7	— 0·5	14·6	30·7	16	15.0	8	6.5	12	17·0	18	40.3	18·5	20	3	5	1	5·7
	Mersa Matruh (A)	19·4	+ 1·9	9.1	— 0·9	14·2	29·3	17	15.8	21	6.3	6	13·8	17	60.7	53·5	20	0	4	1	7·0
	Dabaa	19·8	+ 0·3	8.4	— 0·9	14·1	28·0	17	16.7	7	5.0	10	13·0	27	24.0	17·0	20	0	3	1	4·7
	Alexandria (A)	20·8	+ 0·7	10.8	— 0·4	15·8	27·7	16	16.2	7	6·8	22	17·3	19	89.2	36·7	6	3	4	3	3·8
	Kom el Nadura	19·8	— 1·0	13.0	+ 0·2	16·4	26·3	16	15.1	6	8·4	10	16·3	17	89.9	20·1	6	1	1	5	6·0
	Dekheila (A)	19·8	—	10.6	—	15·2	26·0	17	14.9	7	6·3	10	14·5	27	65.8	18·3	6	2	2	4	5·4
	Damietta	19·4	— 1·1	10.8	+ 0·2	15·1	25·9	16	16.9	6	6·0	5	14·8	15	16.7	4·0	8	2	6	0	3·1
	Port Said (A)	20·4	+ 0·8	13.4	— 0·1	16·9	26·6	17	16.7	7	8·8	6	16·5	13,14	3.5	2·7	2	3	1	0	3·8
	El Arish	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ghazza	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower Egypt	Damanhour	21·2	— 0·2	8·8	— 0·9	15·0	29·1	16	17.2	7	5·3	10	14·8	18	35.2	13·8	6	3	5	1	1·9
	Mansoura	21·6	+ 0·2	9·3	— 0·1	15·4	29·0	16	16.8	30	5·2	5	12·8	18	1.0	1·0	19	0	1	0	2·2
	Tanta	21·0	— 0·4	8·0	0·0	14·5	29·5	17	15.8	30	5·2	11	13·0	18	4.9	2·0	19	2	2	0	3·0
	Shebin el Kom	20·1	— 1·5	9·5	+ 0·4	14·8	27·4	17	15.6	31	7·1	22	14·4	18	0.8	0·8	1	1	0	0	3·3
	Zagazig	21·7	+ 0·1	8·0	— 0·2	14·8	30·0	16	15.5	30	4·8	9·10	12·5	19	0.8	0·8	1	1	0	0	2·6
	Zaher (A)	21·0	—	10·1	—	15·6	30·3	16	18.0	7	7·0	29	15·4	18	1.4	0·8	1	2	0	0	6·2
	Wadi el Natrun	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Abu Sueir (A)	21·5	—	8·6	—	15·0	30·7	16	17.7	7	5·5	10	13·6	17	tr.	tr.	1·19	0	0	0	7·1
Cairo Area	Cairo (A)	21·0	+ 0·8	10·1	— 0·1	15·6	30·0	16	17.5	7	7·5	9·22	16·0	17	0.1	0·1	1	1	0	0	6·9
	Almaza (A)	21·4	+ 0·8	10·2	0·0	15·8	31·2	17	18.0	6	7·5	9·23	16·7	18	0	0	—	0	0	0	6·2
	Mostafa Helmi (A)	20·5	—	9·0	—	14·8	30·2	18	16.8	6	5·0	10	16·5	17	0.1	0·1	19	1	0	0	7·5
	Giza	21·5	+ 0·2	8·1	+ 0·4	14·6	29·4	17	18.7	7·22	4·5	10	13·8	19	0	0	—	0	0	0	—
	Helwan	21·0	+ 0·6	10·7	+ 0·5	15·8	29·5	16	17.2	6	5·6	9	17·6	17	0.5	0·5	1	1	0	0	6·4
Upper Egypt	Fayoum	20·7	— 1·4	7·9	— 0·4	14·3	27·0	16	17.0	9	4·0	10	14·0	19	0	0	—	0	0	0	2·5
	Beni Suef	22·4	+ 0·5	6·9	— 0·3	14·6	31·5	16,17	18.4	6	2·6	10	12·2	1	tr.	tr.	1	0	0	0	2·8
	Minya (A)	21·9	+ 0·2	5·6	— 1·4	13·8	30·2	16	17.5	6	1·8	10	10·0	19	tr.	tr.	1	0	0	0	4·9
	Asyoût (A)	22·1	0·0	8·8	+ 0·2	15·4	31·0	16	17·2	6	5·4	10,11	15·0	2	tr.	tr.	1	0	0	0	7·6
	Nag Hammadi	24·0	+ 0·6	7·8	+ 0·4	15·9	31·6	17	19·0	7	5·0	12	13·7	2	0	0	—	0	0	0	2·7
	Qena	25·2	+ 0·9	8·4	— 0·6	16·8	33·8	15	19·4	8	4·4	7	12·4	16	0	0	—	0	0	0	5·0
	Luxor (A)	25·2	+ 0·9	7·4	0·0	16·3	31·6	16	19·1	8	3·3	7	11·6	4	0	0	—	0	0	0	4·9
	Aswan	27·1	+ 1·4	11·8	— 0·2	19·4	34·9	16	20·2	9	6·5	7	16·2	4·16	0	0	—	0	0	0	6·1
Western Desert	Siwa	20·8	+ 0·3	5·9	— 0·8	13·4	31·0	16	17·1	6	0·7	11	10·7	1	tr.	tr.	1	0	0	0	5·5
	Bahariya	23·0	+ 1·7	5·4	— 1·1	14·2	31·9	18	16·0	6	—0·2	10	11·5	19	0	0	—	0	0	0	5·4
	Farafra	22·1	+ 0·4	5·3	— 0·1	13·7	32·7	17	16·8	6	—2·5	11	12·5	19	0	0	—	0	0	0	7·0
	Dakhla	24·0	+ 1·6	4·8	— 2·1	14·4	32·9	16	18·9	6	0·7	12	11·3	2	0	0	—	0	0	0	7·8
	Kharga	24·1	+ 0·7	7·8	— 0·4	16·0	34·8	16	18·6	8	3·2	12	14·0	16	0	0	—	0	0	0	6·8
Red Sea	Suez	21·1	— 0·8	9·4	— 1·3	15·2	26·4	14	17·8	9	5·8	24	17·2	2	tr.	tr.	1	0	0	—	5·3
	Tor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hurghada	23·2	+ 1·4	11·2	— 0·1	17·2	27·9	15	19·8	8,9	8·4	7	17·2	2	1.0	1·0	2	0	1	0	11·9
	Quseir	23·8	— 0·6	14·5	— 1·6	19·2	28·4	2	20·1	7	9·9	6	17·3	5	0	0	—	0	0	0	10·9

TABLE A 3.—MISCELLANEOUS WEATHER PHENOMENA

DECEMBER 1957

STATION	NUMBER OF DAYS OF OCCURRENCE OF							
	Rain	Snow	Hail	Thunder-storms	Fog	Mist or Sandrising or Dustraising	Duststorms or Sandstorms	Gales
Sallum	7	0	0	0	0	0	0	0
Sidi Barrani	9	0	0	0	0	1	0	0
Mersa Matruh (A)	5	0	0	0	0	0	0	3
Alexandria (A)	10	0	0	3	4	0	0	0
Port Said (A)	4	0	0	0	0	0	0	0
El Arish	—	—	—	—	—	—	—	—
Abu Sueir (A)	0	0	0	0	0	2	0	1
Cairo (A)	1	0	0	0	1	1	0	0
Almaza (A)	0	0	0	0	1	0	0	0
Mostafa Helmi (A)	1	0	0	0	2	2	0	0
Minya (A)	0	0	0	0	1	0	0	0
Asyoût (A)	0	0	0	0	0	0	0	0
Luxor (A)	0	0	0	0	0	0	0	0
Aswan	0	0	0	0	0	0	0	0
Siwa	0	0	0	0	0	0	0	0
Hurghada	1	0	0	0	0	0	0	0
Quseir	0	0	0	0	0	0	0	0

TABLE A 4.—NUMBER OF SIMULTANEOUS OCCURRENCES OF SURFACE WIND (MEAN HOURLY VALUES) WITHIN SPECIFIED RANGES OF SPEED AND DIRECTION

DECEMBER 1957

STATION	Calm	Variable	Unrecorded	Wind Speed in Knots	Number of Occurrences of wind blowing from the ranges of directions indicated in degrees from the north												
					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	11	16	15	10	15	18	47	53	16	10	4	9	224
				11-27	4	—	1	9	23	60	52	100	130	67	42	26	514
Sidi Barrani	0	0	0	28-47	—	—	—	—	—	—	—	—	—	—	6	—	6
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**15**	**16**	**16**	**19**	**38**	**78**	**99**	**153**	**146**	**77**	**52**	**35**	**744**
				1-10	26	15	10	19	31	27	37	38	34	18	13	12	280
				11-27	8	1	5	20	31	6	31	118	138	31	20	21	430
Mersa Matruh (A)	17	13	0	28-47	—	—	—	—	—	—	—	—	3	1	—	—	4
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**34**	**16**	**15**	**39**	**62**	**33**	**68**	**156**	**175**	**50**	**33**	**33**	**714**
				1-10	35	43	74	70	28	30	16	32	66	18	24	27	463
				11-27	12	4	7	8	2	1	—	4	74	52	38	36	238
Alexandria (A)	39	0	0	28-47	—	—	—	—	—	—	—	—	2	2	—	—	4
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**47**	**47**	**81**	**78**	**30**	**31**	**16**	**36**	**142**	**72**	**62**	**63**	**705**
				1-10	36	64	57	47	43	24	26	23	51	68	34	32	505
				11-27	1	5	32	7	—	1	5	24	99	42	4	5	225
Port-Said (A)	0	12	0	28-47	—	—	—	—	—	—	—	—	2	—	—	—	2
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**37**	**69**	**89**	**54**	**43**	**25**	**31**	**47**	**152**	**110**	**38**	**37**	**732**
				1-10	12	50	65	57	53	21	16	63	36	33	32	28	466
				11-27	—	5	22	11	7	6	6	33	42	29	3	—	164
Cairo (A)	62	34	18	28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**12**	**55**	**87**	**68**	**60**	**27**	**22**	**96**	**78**	**62**	**35**	**28**	**630**
				1-10	67	123	28	32	30	25	48	51	33	24	32	31	524
				11-27	9	33	21	2	4	15	51	25	31	—	—	—	191
Almaza (A)	10	19	0	28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**76**	**156**	**49**	**34**	**34**	**40**	**99**	**76**	**64**	**24**	**32**	**31**	**715**
				1-10	17	62	29	28	38	78	97	39	30	65	82	119	684
				11-27	—	1	—	—	—	—	—	—	—	—	6	3	10
Luxor (A)	50	0	0	28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				≥48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**17**	**63**	**29**	**28**	**38**	**78**	**97**	**39**	**30**	**65**	**88**	**122**	**694**
				1-10	10	8	11	26	50	64	28	15	32	90	131	22	487
				11-27	3	5	—	—	11	7	1	4	—	9	45	19	104
Siwa	153	0	0	28-47	—	—	—	—	—	—	—	—	—	—	—	—	—
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**13**	**13**	**11**	**26**	**61**	**71**	**29**	**19**	**32**	**99**	**176**	**41**	**591**
				1-10	29	8	10	12	21	4	2	7	18	47	151	64	373
				11-27	20	—	—	—	—	3	7	—	—	57	137	126	350
Hurghada	2	16	0	28-47	—	—	—	—	—	—	—	—	—	—	—	3	3
				48	—	—	—	—	—	—	—	—	—	—	—	—	—
				All Speeds	**49**	**8**	**10**	**12**	**21**	**7**	**9**	**7**	**18**	**104**	**288**	**193**	**726**

TABLE B 1.— UPPER AIR CLIMATOLOGICAL DATA

CAIRO (A) — 0000 U.T. — DECEMBER 1957

Pressure Surface (Millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	28	1012	1019mb	1001mb	28	13·1	19·8	9·6	28	6·3
1000	28	177	219	79	28	13·8	18·4	10·7	27	6·3
850	28	1532	1575	1458	28	7·9	18·6	— 0·6	23	— 2·2
700	28	3105	3188	3002	28	2·7	10·6	— 7·4	11	—11·5
600	28	4326	4443	4187	28	— 1·2	0·7	—16·7	8	—14·1
500	28	5729	5874	5532	28	—15·8	— 8·7	—23·0	10	—17·3
400	28	7378	7550	7135	28	—27·0	—21·5	—34·7	9	—30·9
300	24	9414	9579	9174	24	—40·3	—32·6	—45·2	3	—46·4
200	15	12062	12284	11787	15	—58·2	—52·8	—62·3	—	—
150	8	13869	14035	13550	8	—64·8	—61·0	—67·5	—	—
100	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N — Number of observations of specified pressure surfaces.

CAIRO (A) — 1200 U.T. — DECEMBER 1957

Pressure Surface (Millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	30	1011mb	1016mb	1002mb	30	19·4	28·3	14·8	30	6·9
1000	30	165	220	88	30	18·4	27·8	13·8	30	6·2
850	30	1529	1575	1474	30	7·8	17·6	1·8	23	1·2
700	30	3108	3199	3010	30	7·9	9·9	— 6·8	8	— 9·6
600	29	4329	4462	4210	29	— 5·9	4·0	—14·0	7	—16·0
500	29	5732	5875	5578	29	—15·0	— 6·9	—22·0	8	—23·1
400	29	7383	7555	7182	29	—26·2	—19·7	—32·5	10	—31·9
300	23	9414	9585	9160	23	—39·8	—35·5	—43·0	2	—45·5
200	14	12129	12307	11845	14	—56·5	—51·2	—58·6	—	—
150	7	13917	14072	13768	7	—63·6	—55·5	—66·0	—	—
100	2	16291	16378	16205	2	—64·7	—62·6	—66·8	—	—
60	2	19413	19519	19308	2	—59·7	—58·8	—60·6	—	—
40	2	21993	22092	21895	2	—51·7	—51·0	—52·5	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N — Number of observations of specified pressure surfaces.

TABLE B 1.— UPPER AIR CLIMATOLOGICAL DATA

MERSA MATRUH (A) — 0000 U.T. — DECEMBER 1957

Pressure Surface (Millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	26	1016mb	1023mb	1005 b	26	11·0	14.6	8.1	26	7.3
1000	26	163	219	72	26	13·2	21.1	9.5	26	7.4
850	26	1522	1581	1431	26	9.7	20.2	— 0.4	20	— 0.8
700	26	3099	3212	2998	26	— 4.9	8.1	—10.5	20	— 9.2
600	26	4281	4463	4195	26	—12.5	00	—17.2	12	—15.8
500	26	5712	5897	5561	26	—16.7	— 8.9	—23.7	7	—25.0
400	26	7358	7577	7158	26	—27.5	—21.0	—35.0	9	—31.0
300	26	9366	9612	9120	26	—36.6	—35.3	—46.5	6	—43.5
200	23	12035	12321	11768	23	—59.8	—50.8	—61.0	—	—
150	15	13784	14096	13576	15	—59.8	—53.4	—66.2	—	—
100	4	16193	16293	16051	4	—64.5	—60.8	—68.0	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N—Number of observations of specified pressure surfaces.

MERSA MATRUH (A) — 1200 U.T. — DECEMBER 1957

Pressure Surface (Millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.	
	N	Mean			N	Mean			N	Mean
Surfece	20	1016	1023	1009	20	17.7	23.2	13.8	20	9.3
1000	20	170	223	106	20	16.7	23.1	13.2	20	10.3
850	20	1533	1578	1464	20	8.0	21.2	2.2	16	— 2.5
700	20	3116	3219	3002	19	0.7	10.5	— 7.4	13	— 6.6
600	19	4343	4484	4195	18	— 5.4	2.9	—11.1	7	—13.4
500	19	5744	5934	5603	19	—14.2	— 8.4	—21.3	7	—25.7
400	19	7397	7622	7169	19	—25.8	—17.7	—33.0	8	—35.8
300	19	9417	9675	9126	19	—40.0	—35.5	—47.2	—	—
200	18	12084	12362	11780	18	—55·8	—48.1	—61.0	—	—
150	17	13882	14145	13614	17	—60.7	—56.7	—68.5	—	—
100	16	16360	16537	16144	16	— 65.6	—61.2	—72.4	—	—
60	16	19480	19669	19339	16	—61.4	—51.9	—67.4	—	—
40	12	21964	22125	21852	12	—56.8	—52.8	—63.4	—	—
30	9	23818	23972	23637	9	—52.8	—51.2	—58.5	—	—
20	5	26503	26613	26375	5	—49.7	—48.9	—51.0	—	—
10	—	—	—	—	—	—	—	—	—	—

N—Number of observations of specified pressure surfaces.

TABLE B 1.—UPPER AIR CLIMATOLOGICAL DATA

ASWAN — 0000 U.T. — DECEMBER 1957

Pressure Surface (Millibar)	Heights of pressure surfaces (gpm.)				Temperature (°C)				Dew Point (°C)	
	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.		Highest	Lowest	obs. at 0000 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	8	1004 mb	1008 mb	1001 mb	8	14.5	18.1	12.0	8	7.1
1000	8	174	199	140	8	14.6	18.2	11.9	8	7.1
850	8	1545	1568	1519	8	12.8	15.7	9.2	5	1.2
700	8	3156	3195	3118	8	7.3	12.3	3.1	—	—
600	8	4406	4443	4350	8	1.0	4.0	— 4.0	—	—
500	8	5843	5906	5762	8	— 8.9	— 4.6	—12.5	—	—
400	8	7527	7599	7424	8	—22.1	—17.7	—25.2	—	—
300	8	9575	9648	9458	8	—36.9	—33.3	—40.8	2	—44.2
200	8	12237	12345	12093	8	—58.1	—54.2	—64.4	—	—
150	8	13992	14222	13649	8	—66.6	—62.2	—68.8	—	—
100	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N—Number of observations of specified pressure surfaces.

ASWAN — 1200 U.T. — DECEMBER 1957.

Pressure Surface (Millibar)	Heights of pressure surfaces (gpm).				Temperature (°C)				Dew Point (°C)	
	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.		Highest	Lowest	obs. at 1200 U.T.	
	N	Mean			N	Mean			N	Mean
Surface	10	1003 mb	1007 mb	998 mb	10	27.0	33.5	18.8	10	8.9
1000	8	172	202	140	8	25.9	33.5	17.9	8	8.5
850	10	1561	1588	1531	10	16.1	22.3	10.5	8	0.2
700	10	3214	3384	3159	10	9.9	12.0	8.3	4	— 3.3
600	10	4454	4505	4411	10	2.6	4.7	— 0.8	—	—
500	10	5900	5966	5847	10	— 6.5	— 0.2	—10.6	—	—
400	10	7603	7678	7538	10	—18.7	—13.6	—22.0	3	—28.0
300	9	9665	9763	9592	9	—35.4	—32.2	—38.6	2	—44.2
200	7	12367	12473	12241	7	—56.4	—53.3	—59.8	—	—
150	6	14129	14251	13991	6	—66.2	—64.2	—71.2	—	—
100	5	16532	16656	16336	5	—73.1	—70.0	—79.1	—	—
60	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—

N—Number of observations of specified pressure surfaces.

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

0000 U.T.—DECEMBER 1957

STATION	Time of obs. U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	resure mb.	Dew point °C	Height gpm. (N)	Pressure mb (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	pressure mb.	Temp. °C	Height gpm.	pressure mb.	Direction (000-360)	Speed in knots
Cairo (A)	0000	2994	721	— 7.9	4410	594	—13.0	1420	860	— 6.5	11780	191	—62.6	13300	165	—64.2	11720	214	—60.2	11000	237	270	117
		(28)	(28)	(19)							(3)	(3)	(3)										
Mersa Matruh (A)	0000	2881	653	— 5.1	4400	600	—14.3	1480	856	00	11978	206	- 56.1	13750	159	—67.2	9250	291	—38.0	15100	110	010	138
		(26)	(26)	(20)							(9)	(9)	(9)										
Aswan	0000	4435	610	—13.3	4890	565	—	3700	650	—	13332	179	—63.8	13780	157	—64.0	11900	208	—60.6	13500	163	300	102
		(8)	(8)	(2)							(6)	(6)	(6)										

N = Total number of observations.

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

1200 U.T. DECEMBER 1957

STATION	Time of obs. U.T.	FREEZING LEVEL									FIRST TROPOPAUSE									HIGHEST WIND SPEED			
		Mean			Highest			Lowest			Mean			Highest			Lowest						
		Height gpm. (N)	Pressure mb. (N)	Dew point °C (N)	Height gpm.	Pressure mb.	Dew point °C	Height gpm.	Pressure mb.	Dew point °C	Height gpm. (N)	Pressure mb. (N)	Temp. °C (N)	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	Pressure mb.	Temp. °C	Height gpm.	pressure mb.	Direction (000-360)	Speed in knots
Cairo (A)...	1200	3659 (29)	711 (29)	— 8.0 (15)	5000	562	—	1780	817	— 3.6	11170 (4)	232 (4)	—56.3 (4)	11780	203	—60.0	10000	280	—48.2	9200	284	280	146
Mersa Matruh (A)...	1200	3187 (19)	699 (19)	— 7.6 (11)	4910	563	—17.6	1850	812	— 0.4	16744 (16)	113 (16)	—69.7 (16)	18110	[illegible]	— 69.2	[illegible]	170	[illegible]	13400	178	050	136
Aswan	1200	4764 (10)	569 (10)	—12.4 (3)	5230	543	—	4320	668	—15.5	14195 (6)	153 (6)	—67.3 (6)	17710	82	—70.7	[illegible]	186	[illegible]	11700	224	260	120

N — Total number of observations.

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.

CAIRO (A) — 0000 U.T. DECEMBER 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of observations (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)$_m$			
Surface ...	—	—	—	—	2	5	5	6	3	10	1	15	1	12	5	11	2	14	1	10	1	2	—	—	7	28	7
1000	—	—	1	10	5	11	5	13	—	—	2	9	—	—	4	12	2	9	1	10	1	4	—	—	6	27	8
850	5	11	5	11	2	9	1	10	—	—	1	5	—	—	2	10	5	18	2	14	—	—	2	7	—	25	12
700	1	10	—	—	—	—	—	—	—	—	—	—	—	—	2	9	5	24	3	17	9	16	1	15	—	21	17
600	1	12	—	—	—	—	—	—	—	—	—	—	—	—	1	8	5	27	9	26	5	31	2	23	—	23	26
500	—	—	1	26	—	—	—	—	—	—	—	—	—	—	—	—	6	37	9	41	7	37	2	24	—	25	37
400	—	—	—	—	1	37	—	—	—	—	—	—	—	—	—	—	2	42	11	51	6	64	1	16	—	21	52
300	—	—	—	—	1	47	—	—	—	—	—	—	—	—	—	—	2	91	6	55	6	60	—	—	—	15	61
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	102	4	68	—	—	—	6	80
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	96	1	37	—	—	—	2	67
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

CAIRO (A)—1200U.T.—DECEMBER 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of observations (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			
Surface ...	3	7	3	10	5	12	2	7	—	—	—	—	—	—	3	17	2	17	3	17	3	10	6	5	—	30	11
1000	2	7	4	8	6	12	1	15	—	—	—	—	—	—	3	15	2	19	4	14	4	8	3	7	—	29	11
850	—	—	6	11	4	12	—	—	1	8	1	9	3	7	1	11	3	13	4	18	3	10	2	10	—	28	12
700	1	5	1	16	—	—	—	—	1	10	1	9	—	—	2	11	7	18	2	27	5	21	7	13	—	27	16
600	1	4	1	16	—	—	—	—	—	—	—	—	1	21	—	—	5	21	9	33	5	25	2	22	—	24	25
500	—	—	1	22	—	—	—	—	—	—	—	—	—	—	—	—	7	28	6	53	8	32	—	—	—	22	36
400	1	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	57	8	49	6	47	—	—	—	18	48
300	1	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	102	4	87	4	69	1	35	—	11	71
200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	36	1	43	1	48	—	3	42
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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) — 0000 U.T. — DECEMBER 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of observations (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		285–315		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			
Surface ...	—	—	—	—	—	—	—	—	4	10	1	10	4	10	9	16	6	11	1	3	—	—	—	—	1	26	12
1000	—	—	1	6	—	—	—	—	3	16	1	10	2	13	7	12	4	14	4	14	1	14	—	—	2	25	12
850	1	14	—	—	1	3	—	—	—	—	1	4	2	16	1	15	3	14	3	15	8	20	3	20	2	25	15
700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	29	4	28	5	25	8	23	5	22	1	24	23
600	1	14	—	—	—	—	—	—	—	—	—	—	—	—	1	49	1	28	10	36	8	33	1	25	—	22	34
500	—	—	1	30	—	—	—	—	—	—	—	—	—	—	1	49	1	45	9	49	6	50	2	37	—	20	47
400	—	—	1	34	—	—	—	—	—	—	—	—	—	—	1	59	—	—	5	53	7	52	—	—	—	14	52
300	1	31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	68	5	78	—	—	—	10	69
200	1	29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	70	—	—	—	4	60
150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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)—1200 U.T.—DECEMBER 1957

Pressure Surfaces (mb.)	Wind between specified ranges of direction (000-360)																						Calm	Total Number of observations (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	$(ff)_m$			
Surface ...	—	—	—	—	3	12	1	16	1	16	1	9	—	—	2	16	3	15	3	21	2	12	4	10	—	20	14
1000	—	—	—	—	1	9	—	—	3	13	1	18	1	11	1	20	1	12	6	22	3	11	3	8	—	20	15
850	1	8	1	5	—	—	—	—	—	—	2	7	1	6	2	15	3	13	2	22	6	16	2	10	—	20	13
700	1	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	19	6	23	7	17	1	29	—	19	19
600	—	—	—	—	—	—	1	21	—	—	—	—	—	—	—	—	2	18	7	26	6	31	1	22	—	17	26
500	—	—	—	—	—	—	1	42	—	—	—	—	—	—	—	—	1	36	10	38	4	42	1	31	—	17	38
400	—	—	—	—	1	62	—	—	—	—	—	—	—	—	—	—	—	—	9	55	5	52	—	—	—	15	55
300	—	—	—	—	1	42	—	—	—	—	—	—	—	—	—	—	1	61	4	56	3	55	—	—	—	9	55
200	—	—	—	—	1	112	—	—	—	—	—	—	—	—	—	—	—	—	2	37	2	55	—	—	—	5	59
150	—	—	—	—	1	134	—	—	—	—	—	—	—	—	—	—	—	—	2	34	1	45	—	—	—	4	62
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	34	1	78	—	—	—	4	45
60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	17	1	56	—	—	—	2	36
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REVIEW OF AGRO-METEOROLOGICAL STATION AT GIZA

DECEMBER 1957

This month was generally mild and rainless as compared with the normal values for December at Giza ; the mean air temperature at 2 metres was about normal, the mean relative humidity was to a moderate extent below its normal (7%) and the total amount of rainfall was appreciably below its normal (-5 mms).

Maximum soil temperatures in dry field down to 20 cms depth were less than those of last December by 0.5 to 2 degrees, while the minimum temperatures were higher by the same range. In the deeper layers, maximum and minimum soil temperatures were both higher than those of December 1956 by 0.5 to one degree.

Mean wind speed at 2 metres was practically the same as last year. Total sunshine duration was 53 hours, or 17% of possible, less than previous December, and total (Solar+Sky) radiation was 750 gm. cal/cm^2 less.

TABLE C 1.—AIR TEMPERATURE, HUMIDITY AND WIND SPEED AT 2 METRES ABOVE THE GROUND

GIZA—DECEMBER 1957

DATE	AIR TEMPERATURE (°C)					Rel. Humidity Hours of duration		Humidity at 1200 U.T.		Wind Speed metres per second		
	Max.	Min.	Mean * of the day	Day time mean	Night time mean	>90%	>80%	Relative %	Vapour pressur (mms)	Mean of the day	Day time mean	Night time mean
1	22.6	11.2	15.9	18	16	1	7	46	8.6	2.7	3.5	2.1
2	22.2	12.6	15.4	19	16	2	6	52	9.6	1.7	2.2	1.4
3	20.9	7.0	11.6	15	11	8	11	41	6.9	0·4	0·8	0.1
4	20.6	9.2	13·0	16	11	0	1	33	5.7	2.4	4.0	1.3
5	19.4	7.6	12.3	15	11	0	0	39	6.0	2.4	4.0	1.3
6	19.3	7.8	11.9	14	11	0	0	45	6.8	3.5	4.1	3.1
7	18.7	7.4	11.7	14	11	0	0	45	6.6	3.2	4.5	2.3
8	19.1	8.0	11.6	15	11	0	0	46	6.8	2.6	4.1	1.6
9	19.2	6.3	10.3	14	10	0	7	48	7.4	1.5	1·9	1.2
10	20.4	4.5	11.4	15	8	4	11	39	6.1	0.7	1.2	0.2
11	19.8	5.4	11.7	15	9	6	11	56	9.1	1.2	2·6	0.2
12	20.3	8.0	13.4	16	12	9	12	54	9.0	2.1	3.2	1.3
13	23.2	9.8	15.1	18	14	10	11	38	7.7	2.3	3·3	1.6
14	25.2	8.0	15.2	19	14	6	9	35	8.1	2.1	2.8	1.6
15	25.1	8.2	13.2	18	13	6	14	49	10·1	1.4	1.1	1.7
16	29.2	9.1	16.9	22	12	2	7	35	9·8	1.3	2.5	0.4
17	29.4	11.2	17.9	24	15	0	5	33	9·6	0.7	1.1	0.4
18	28.0	13.4	18.4	22	16	0	4	35	9.2	1.6	2.8	0.7
19	20.4	13.8	15.8	18	17	6	13	54	9.2	1·8	2.6	1.2
20	20.3	9.3	13.4	17	13	6	12	54	9.1	1.1	2.1	0.4
21	19.0	6.5	11.8	15	11	8	12	50	7.7	1·3	2.4	0.5
22	18.7	5.9	11.7	15	10	9	14	52	8.2	1.5	2.6	0.8
23	19.2	5.8	11.8	15	11	7	10	42	6.7	1.3	2.5	0.5
24	19.8	5.6	11.6	15	10	8	12	40	8.4	1·0	1.9	0.4
25	19.8	5.7	12·2	15	9	8	11	56	9.2	1·0	2.3	0·0
26	19.6	7.6	12.7	15	11	8	11	53	8.6	2·0	3.4	1.1
27	19.2	6.1	11.6	15	11	6	12	51	8.1	1·7	2.5	1.0
28	19.9	6.8	12.4	15	11	6	10	45	7.4	1.6	2.9	0.8
29	19.7	5.6	11.1	15	11	7	12	48	7.7	2·0	3.2	1.0
30	22.2	8.3	13.1	16	12	1	12	38	6.9	1.4	1.0	1.8
31	25.6	8.6	15·4	18	12	0	3	48	10.0	1.2	2.3	0.3
Mean	21.5	8.1	13.3	16.5	11.9	—	—	45	8.1	1·7	2.6	1.0
Highest	29.4	13.8	—	—	—	—	—	—	10.1	—	—	—
Date...	17	19	—	—	—	—	—	—	15	—	—	—
Lowest	18.7	4.5	—	—	—	—	—	33	5·7	—	—	—
Date...	7.22	10	—	—	—	—	—	4·17	4	—	—	—

* Mean temperature is computed from formula $\frac{0600+1200+1800+\text{Min.}}{4}$

Humidity at 2 metres above ground :

Mean daily ralative humidity $\frac{0600+1800 \text{ U.T.}}{2}$ 75%

Lowest relative humidity ... ... 30% on ... ... 17th.

Mean daily vapour pressure $\frac{0600+1200+1800 \text{ U.T.}}{3}$ ... ... 8.1 mms.

Highest value of vapour pressure ... ... 11.4 mms. on ... ... 19th.

Lowest value of vapour pressure ... ... 5.3 mms. on ... ... 5th.

TABLE C 2.—EVAPORATION, RAINFALL, (SOLAR+SKY) RADIATION AND SUNSHINE DURATION, DAILY NUMBER OF HOURS OF DURATION OF AIR TEMPERATURE ABOVE CERTAIN VALUES.

GIZA — DECEMBER 1957

DATE	Piche evaporation (mms.)	Amount of rainfall (mms.)	(Solar+Sky) radiation gm. cal./cm²	Sunshine duration in hours	Duration in hours of air temp. at 2 metres height above the following values								
					0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C
1	8	0	275	5.4	24	24	24	15	5	0	0	0	0
2	5	0	326	8.9	24	24	22	13	5	0	0	0	0
3	4	0	222	5.0	24	24	14	6	0	0	0	0	0
4	10	0	378	9.0	24	24	21	7	0	0	0	0	0
5	13	0	378	9.3	24	24	15	7	0	0	0	0	0
6	10	0	378	9.4	24	24	17	5	0	0	0	0	0
7	8	0	349	8.9	24	24	15	6	0	0	0	0	0
8	8	0	364	9.7	24	24	13	6	0	0	0	0	0
9	4	0	333	8.1	24	24	10	5	0	0	0	0	0
10	6	0	358	9.8	24	23	12	7	0	0	0	0	0
11	5	0	336	8.6	24	24	15	8	0	0	0	0	0
12	5	0	306	6.7	21	24	16	12	0	0	0	0	0
13	7	0	337	7.9	24	24	24	13	6	0	0	0	0
14	8	0	365	9.7	24	24	20	12	6	0	0	0	0
15	4	0	340	9.2	24	24	18	9	6	0	0	0	0
16	8	0	363	9.7	24	24	22	13	8	5	0	0	0
17	8	0	317	7.0	24	24	24	13	8	5	0	0	0
18	9	0	324	6.6	24	24	24	16	8	4	0	0	0
19	5	0	262	3.9	24	24	24	14	0	0	0	0	0
20	5	0	341	8.6	24	24	23	9	0	0	0	0	0
21	5	0	310	9.3	24	24	16	7	0	0	0	0	0
22	4	0	316	8.5	24	24	15	7	0	0	0	0	0
23	5	0	355	9.6	24	24	15	7	0	0	0	0	0
24	5	0	367	9.3	24	24	13	7	0	0	0	0	0
25	4	0	316	9.0	24	24	15	8	0	0	0	0	0
26	5	0	287	8.1	24	24	14	8	0	0	0	0	0
27	5	0	295	7.7	24	24	14	8	0	0	0	0	0
28	6	0	307	8.5	24	24	14	9	0	0	0	0	0
29	7	0	311	7.6	24	24	15	9	0	0	0	0	0
30	3	0	225	2.8	24	24	18	7	2	0	0	0	0
31	8	0	206	2.0	24	24	21	12	6	0	0	0	9
TOTAL	197	0	9947	244	744	743	495	285	60	14	0	0	9
Mean	6.3	0	320.9	7.9	24	24	16	9.2	1.9	0.5	0	0	0

Percentage of total hours of sunshine duration occurred with respect to the total hours possible 77 %
Maximum amount of rainfall in one day (24 hours) ... ... 0 mms

TABLE C 3.—EXTREME SOIL TEMPERATURES AT DIFFERENT DEPTHS AND MINIMUM AIR TEMPERATURE AT 5cms. ABOVE GROUND

GIZA DECEMBER 1957

Extreme Soil Temp. °C	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Nin.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Depth in cms.	0.3		1		2		5		10		20		50		100		200		300	
Dry Soil	35.5	2.5	34.5	3.0	30.5	5.5	26.0	10.0	21.0	13.0	20.0	15.5	23.5	19.0	25.5	22.0	26.5	24.5	—	—
Wet Soil	26.0	2.5	24.0	3.0	23.5	4.5	20.5	6.5	18.0	9.5	17.5	11.5	19.0	15.5	21.0	17.5	23.0	20.5	—	—
Grass	22.0	6.5	—	—	—	—	17.0	9.5	17.0	10.5	18.0	12.5	20.5	16.0	22.0	18.5	—	—	—	—

Minimum air temperature (°C) at 5cms. above ground :

Lowest minimum temperature over dry soil ... ... 0·7 °C on 10th.
" " " " wet soil ... ... 1·1 °C on 10th.
" " " " grass... ... ...—2·6 °C on 10th.

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الهيئة العامة لشئون المطابع الأميرية
القاهرة

MONTHLY WEATHER REPORT

CORRIGENDA

TO

THE MONTHLY WEATHER REPORTS FOR THE YEAR 1957

MINISTRY OF WAR–METEOROLOGICAL DEPARTMENT
CAIRO–EGYPT

MONTHLY WEATHER REPORT

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CORRIGENDA
TO THE MONTHLY WEATHER REPORTS
FOR THE YEAR 1957

VOLUME 48 — NUMBER 1 — JANUARY 1957

Page 3.—Notes on Tables.

11th line : insert "7" after page.

Page 7.—List of Stations Appearing in the Report.

Amend Latitude, Longitude and Elevation of the following stations as indicated :

Station	Latitude	Longitude	Elevation
Dabaa	31° 56′	28° 28′	17
Kom el Nadura	31° 12′	29° 57′	32
El Arish	31° 57′	33° 46′	10
Ghazza	31° 30′	34° 27′	47
Cairo (A)	31° 08′	31° 34′	68
Siwa	29° 12′	25° 29′	—15

Page 12.—Table A 2.

Column 16—date of max. rainfall in one day against. Bahariya : *replace* "—" *by* "*"

Add 2 columns for deviations from normal to Mean Max. (A) and Mean Min. (B) as indicated :

Station	Air Temperature (°C)				Station	Air Temperature (°C)			
	Mean Max. (A)	Dev. from Normal	Mean Min. (B)	Dev. from Normal		Mean Max. A	Dev. from Normal	Mean Min. (B)	Dev. from Normal
Sallum...	17·5	—	9.0	—	Giza	17.8	— 1·8	5·6	— 0·1
Sidi Barrani	16·6	— 1·8	7.7	— 0·3	Helwan	16·7	— 2·0	7·8	— 0·5
Mersa Matruh (A)	17·3	— 0·9	7.2	— 0·8	*Fayoum*	17·8	— 2·8	5·5	— 0.7
Dabaa...	17·5	— 1·1	6.2	— 0·6	Beni Suef...	19·0	— 1·9	5·2	+ 1·0
Alexandria (A)	18·3	+ 0·2	8.2	— 1·0	Minya (A)	19·8	— 0·8	3·5	— 0·4
Kom el Nadura ...	17·2	— 1·6	9.2	— 1·7	Asyoût (A)	19·7	— 1·1	6·2	— 0·2
Dekheila (A)	16·9	—	7.6	—	Nag Hammadi	21·0	—	4·8	—
Damietta	16·2	— 2·5	5.8	— 2·7	Qena	20·1	— 2·4	4·1	— 2·7
Port Said (A)	17·1	— 0·8	9.4	— 1·9	Luxor (A)	21·8	— 1·2	4·2	— 1·3
Damanhour	18·3	— 1·2	6·5	— 1·2	Aswan	22·9	— 0·7	6·8	— 3·1
Mansoura	18·2	— 1·3	6·0	— 1·2	Siwa	18·1	— 1·6	5·7	+ 1·9
Tanta	18·2	— 1·6	4·1	— 1·9	Bahariya	19·5	— 0·2	4·0	— 0·8
Shebin el Kom... ...	18·2	— 2·0	7·5	+ 0·7	Farafra	19.5	— 1·0	4·2	+ 0·6
Zagazig	18·7	— 1·2	6·2	+ 0·2	Dakhla	19·7	—	3·8	—
Zaher (A)	17·6	—	7·4	—	Kharga	20·9	— 1·1	4·8	— 1·3
Wadiel Natrun ...	18·7	— 1·9	6·9	— 0·3	Suez	18·6	— 1·4	5·5	— 3·8
Cairo (A)	17·2	— 2·1	8·0	— 0·5	Hurghada...	20·5	+ 0·2	7·9	— 1·8
Abbassa (A)	17·8	— 1·4	8·2	— 0·4	Quseir...	21·3	— 1·4	12.1	— 1·8
[illegible] Helwi (A)	16·6	—	6·8	—					

Page 14.—Table A 4.

Column 8 — (165°—194°) — against Mersa Matruh (A) — 2nd range (11—27): *replace* "57" *by* "58".

Page 15.—Table B 1.

CAIRO

1st column, 4th line: *replace* "100" *by* "700".
3rd, 4th and 5th columns, against surface: *add* "mb." after each reading.
3rd column, against 500mb.: *replace* "5642" *by* 5652.

MERSA MATRUH

3rd, 4th and 5th columns, against surface: *add* "mb." after each reading.

Page 22.—Table C 3.

The heading: *replace* "SOIL TEMPERATURE" *by* "EXTREME SOIL TEMPERATURES AT DIFFERENT DEPTHS".

VOLUME 48 — NUMBER 2 — FEBRUARY 1957

Contents.

Against TABLE C 3., *add* the word "Extreme" *before* "Soil Temperatures".

Page 24.—Miscellaneous Weather phenomena.

Last line (d): *add* the word "at" *before* "Hurghada".

Page 36.—Table C 3.

The heading: *replace* "SOIL TEMPERATURE" *by* "EXTREME SOIL TEMPERATURES AT DIFFERENT DEPTHS".

VOLUME 48 — NUMBER 3 — MARCH, 1957

Page 43.—Table B 1— Cairo (A)

Column 3 — against surface: *add* "mb." to the number "1006".

VOLUME 48 — NUMBER 4 — APRIL 1957

Page 63 — Table B 3 — MERSA MATRUH (A)

Range (285—314) under (ff)m — 6th line against 500 mb.: amend "39" *by* "29"

VOLUME 48 — NUMBER 5 — MAY 1957

Page 75.—Table B 1 —Aswan

Column 4, against surface: amend "993m" *by* "993mb"

VOLUME 48 — NUMBER 6 — JUNE 1957

Page 83.—General Summary of Weather Conditions.

4th paragraph 'Precipitation' line 12 : amend "58 mm" *by* "5.8mms.

Page 85.—Table A 2.

Last column 'Mean Evaporation' Piche' against Giza Cancel the reading "17.7"

Page 91.—Review of Agro-Meteorological Station at Giza.

Last Paragraph — 2nd line: amend "Solar sky + radiation" *by* "solar + sky radiation".

VOLUME 48 — NUMBER 7 — JULY 1957

Page 97.—Table A 2.

Column 15, Max. fall in one day, against Bahariya: Amend "—" *by* "0".

Last column, Mean Evaporation Piche, against Giza: Cancel the reading "15.4".

VOLUME 48 — NUMBER 8 — AUGUST 1957

CONTENTS

Against TABLE B-3, under PAGE: Amend "124, 127" *by* "124, to 127".

Page 117.—Table A 2.

Last column, Mean Evaporation Piche, against Giza: Cancel the reading "12.8".

VOLUME 48 — NUMBER 9 — SEPTEMBER 1957

Page 135.—Table A 2.

Headings — No. of days with amount of rain: Amend: "0.1" *by* "$\geq$ 0.1".

Last column, Mean Evaporation Piche, against Giza: Cancel the reading "12.5".

VOLUME 48 — NUMER 10 — OCTOBER 1957

Page 148.—Table A 4.

Last column, All Directions, against Mersa Matruh: Range 11—27: amend "16" *by* "166".

All speeds: amend "64" *by* "643".

VOLUME 48 — NUMBER 12 — DECEMBER 1957

Page 182.—Paragraph for Temperature, 12th line:

Amend rather "heat" wave *by* rather "hot" wave.

Page 198 — Review of Agro-Meteorological Station at Giza:

2nd line: amend was "above" normal by was "about" normal.

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