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Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR JANUARY, 1935

The Weather

Mild, especially during the second half of the month.

At the beginning of the month a shallow depression situated over the eastern Mediterranean caused southerly winds in Egypt and light showers near the coast. A deeper depression followed and on the 15th the wind reached gale force on the coast, while a dust storm prevailed in Cairo during a great part of the day. Light showers occurred throughout the Delta on the 7th and 8th. Anticyclonic conditions with northeast winds were then established, but on the morning of the 15th conditions became disturbed to an unusual extent. A trough of low pressure extended from southern Italy to Upper Egypt, with the main depression centred over the Ionian Sea and small depressions off Mersa Matruh and near Dakhla Oasis. Warm southeast winds traversed Upper Egypt, but little rise in temperature took place in Lower Egypt, where light showers, accompanied in some places by thunderstorms and hail occurred. The desert depression crossed the Red Sea to northern Arabia, while by the morning of the 17th the main depression reached Cyprus. Near the coast strong westerly winds arose, the wind velocity at Alexandria reaching 80 kilometres an hour on the 18th, and heavy rain fell along the coast and in the northern part of the Delta during the period 17th to 19th, 35 millimetres being recorded at Alexandria. Until the 30th no further rain fell in Egypt.

Following the passage of this depression a remarkable heat wave, becoming daily more intense and reaching its peak on the 26th and 27th prevailed for the rest of the month.

Anticyclonic conditions, with morning mists and light northeasterly wind, were maintained from 20th to 25th, when a spell of mild khamsin weather began. A depression approaching from the interior of Tripoli caused a current of warm southerly air to traverse Egypt. The temperature rose rapidly, reaching 31° C. (88° F.) or 12° C. above normal at Helwan on the 27th. Very light rain throughout the Delta preceded the arrival of this depression, the winds freshened on its approach, and dust storms occurred in several places but were not severe. During this period a deep depression was slowly moving along the Mediterranean from the west, while the khamsin depression was slowly crossing Egypt. The fall of temperature was consequently very gradual. Mists occurred on the mornings of the 29th and 30th, being thick and widespread on the latter day, when with the passage of the Mediterranean depression the weather rapidly became cooler, and light rain fell in the north of the Delta.

For the month as a whole the barometric pressure was well below normal throughout Egypt and the Sudan, while the temperature was everywhere above normal, especially in the central Sudan. The night of the 28th, when the temperature at Ezbekia did not fall below 16°C. (61° F.), was the warmest January night in Cairo for at least thirty-five years.

The rainfall in Egypt was much below normal. Very heavy rain, 60 millimetres, fell at Port Sudan on the 27th.

TABLE SHOWING THE DEPARTURE FROM NORMAL FOR JANUARY 1935

DISTRICTS	Barometric Pressure.		Temperature.						Rainfall	
			Maximum.		Minimum.		Max.+Min. ÷ 2.			
	1934.	Difference from Normal.	1934.	Difference from Normal.	1934.	Difference from Normal.	1934.	Difference from Normal	1934.	Difference from Normal
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.
I. Mediterranean	1017·1	−1·4	19·2	+0·9	10·0	+0·2	14·6	+0·6	21	−19
II. Middle Egypt	1018·2	−1·4	20·4	+1·3	7·0	+0·2	13·7	+0·8	2	− 9
III. Upper Egypt	1018·4	−1·2	22·6	+1·1	7·5	+0·3	15·0	+0·7	0	—
IV. North Sudan	1013·6	−1·7	31·2	+1·7	14·2	+1·3	22·7	+1·5	0	0
V. Red Sea *	1015·2	−0·4	27·9	+0·8	21·0	+1·1	24·4	+1·0	60	+51
VI. Central Sudan	1011·6	−1·9	35·3	+2·3	14·9	+1·6	25·1	+2·0	0	0
VII. South Sudan	1010·2	−1·0	38·2	+2·0	19·4	+0·9	28·8	+1·4	0	− 1

*Port Sudan only.

L. J. SUTTON
Director, Meteorological Service.

National Oceanic and Atmospheric Administration

Environmental Data Rescue Program

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September 14, 1999

State of the River

Lake Albert at Butiaba fell 17 centimetres during the month. Its level on February 1 1935 was 3 centimetres below normal and 53 centimetres below that of the corresponding day of last year.

The Bahr el Jebel at Juba fell a few centimetres during the month. The levels throughout were below both the normal and those of last year.

The River Sobat at Nasser fell faster than normally, the level which was 85 centimetres above normal at the beginning being 9 centimetres below normal at the end of the month. The levels were on the average about 30 centimetres above those of last year.

The White Nile at Malakal also fell faster than normally, the levels being above normal throughout, above last year's until the 23rd and identical with them afterwards.

The Blue Nile at Roseires fell at about normal rate, the levels being above both the normal and last year's during the whole month. At Khartoum the Blue Nile fell rather slower than normally the levels being above normal throughout and above last year's after the 12th.

The Main Nile at Kajnarti remained almost steady during the first 12 days and then fell slower than normally. The levels were above normal throughout and on the average a few centimetres above those of last year.

The differences of the mean levels in January 1935 from those of January 1934 and from the normal 1906–1930 were :—

STATION	Mean Differences of Levels	
	Jan. 1935 minus Jan. 1934	Jan. 1935 minus Normal
	Metres	Metres
Juba	— 0·27	— 0·11
Nasser	+ 0·32	+ 0·23 †
Malakal	+ 0·08	+ 0·50
Roseires	+ 0·21	+ 0·47
Khartoum	+ 0·06	+ 0·28
Kajnarti	+ 0·06	+ 0·40

† Nasser normal is for 1922–1930 only.

Discharges of the Nile during December, 1934

Observed by the Irrigation Department.

Esna (D.S. Barrage)

(Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
4	73·40	1380
11	73·40	1300
18	72·97	1120
25	72·82	1040
Approx. Monthly Mean		1200

Aswân

(Measured by Sluices)

(Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	86·58	1390
2	86·58	1390
3	86·56	1390
4	86·56	1390
5	86·56	1390
6	86·56	1390
7	86·54	1390
8	86·53	1390
9	86·53	1390
10	86·54	1390
11	86·54	1400
12	86·50	1360
13	86·45	1320
14	86·37	1280
15	86·32	1250
16	86·26	1220
17	86·22	1190
18	86·17	1160
19	86·17	1160
20	86·16	1160
21	86·14	1160
22	86·14	1160
23	86·16	1160
24	86·14	1160
25	86·14	1160
26	86·14	1160
27	86·14	1160
28	86·13	1160
29	86·12	1160
30	86·12	1160
31	86·12	1160
Approx. Monthly Mean		1260
Normal Mean 1912-1933		1480

Halfa (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	3·43	2180
2	3·41	2140
Approx. Monthly Mean		—
Normal Mean 1912-1933		1760

Kajnarty (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
6	135·08	2010
7	135·05	2000
10	134·93	1920
11	134·87	1890
12	134·82	1880

Kajnarty (*contd.*).

Day of Month	Gauge Reading m.	Disch. m³. p.s.
13	134·80	1850
16	134·75	1850
17	134·76	1850
18	134·77	1860
20	134·76	1850
21	134·74	1820
22	134·73	1800
24	134·67	1760
25	134·64	1760
27	134·60	1740
28	134·59	1750
29	134·57	1730
31	134·51	1680
Approx. Monthly Mean		1880
Normal Mean 1912-1933		1760

River Atbara (Kilo. 3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	10·52	38
8	10·42	33
15	10·34	25
18	10·31	26
24	10·24	14
Approx. Monthly Mean		25
Normal Mean 1912-1933		16

Hassanab (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	12·20	1760
14	12·16	1710
17	12·14	1690
22	12·08	1650
31	12·04	1570
Approx. Monthly Mean		1700
Normal Mean 1912-1933		1560

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	11·67	1820
9	11·64	1800
13	11·57	1770
18	11·54	1740
23	11·50	1610
26	11·48	1610
Approx. Monthly Mean		1720
Normal Mean 1912-1933		1570

Khartoum (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·84	611
8	11·82	588
12	11·72	562
17	11·68	546
22	11·61	504
25	11·60	495
Approx. Monthly Mean		548
Normal Mean 1912-1933		493

Hillet Shérif (Blue Nile)

(Old Sennar Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	11·34	643
5	11·28	622
7	11·09	516
9	11·06	527
11	11·04	522
13	10·98	494
15	10·93	475
17	10·92	465
19	10·92	468
22	10·91	470
24	10·98	502
26	10·96	504
29	10·72	385
31	10·64	373
Approx. Monthly Mean		502
Normal Mean 1912-1933		465

Gezira Main Canal

(Kilo 1·3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	16·03	72
3	16·03	70
16	15·72	55
16	15·72	57
Approx. Monthly Mean		59
Normal Mean 1925-1933		58

Roseires (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	13·82	750
4	13·72	711
6	13·63	662
8	13·54	626
10	13·48	594
12	13·42	592
14	13·38	585
16	13·40	593
18	13·38	585
20	13·38	586
22	13·38	588
24	13·27	547
26	13·17	518
28	13·09	492
30	13·02	461
Approx Monthly Mean		594
Normal Mean 1912-1933		495

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12·06	1140
8	12·01	1120
12	11·95	1120
17	11·90	1130
22	11·85	1110
25	11·84	1100
Approx. Monthly Mean		1120
Normal Mean 1912-1933		1090

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	12·56	1270
10	12·56	1310
15	12·54	1270
20	12·52	1310
25	12·50	1200
30	12·44	1190
Approx. Monthly Mean		1260
Normal Mean 1912-1933		1110

Hillet Doleib (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	14·04	813
9	14·03	797
14	14·01	795
19	13·97	766
24	13·90	719
29	13·81	674
Approx. Monthly Mean		760
Normal Mean 1912-1933		632

River Sobat (At Head)

(Nasser Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	10·42	543
13	10·00	432
23	9·45	401
Approx. Monthly Mean		436
Normal Mean 1929-1933		402

River Gila (At Mouth)

(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·80	47
12	9·40	45
22	8·77	63
Approx. Monthly Mean		55
Normal Mean 1929-1933		40

River Pibor

(U.S. Gila Junction)

(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·80	78
12	9·40	60
22	8·77	42
Approx. Monthly Mean		55
Normal Mean 1929-1933		84

Akobo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	14·47	35
10	14·26	29

Discharges of the Nile during December, 1934 (*continued*)

Observed by the Irrigation Department.

Bahr el Zerâf (Kilo. 3)
(Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	13·05	209
18	13·03	205
28	12·98	205
Approx. Monthly Mean		206
Normal Mean 1912-1933		158

Abu Tong (White Nile)
(Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	13·14	295
18	13·12	305
28	13·09	304
Approx. Monthly Mean		302
Normal Mean 1923-1933		294

Lake No (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·04	310
17	14·03	298
27	14·02	304
Approx. Monthly Mean		305
Normal Mean 1923-1933		293

Bahr el Ghazal
(At Mouth)
(Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·12	16
17	14·12	— 13
27	14·11	— 6
Approx. Monthly Mean		0
Normal Mean 1923-1933		14

Bahr el Jebel (Kilo. 3.)
(Lake No Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·04	300
17	14·03	304
27	14·02	307
Approx. Monthly Mean		304
Normal Mean 1923-1933		286

Gigging (Bahr el Jebel)
(Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	28·62	161
Approx. Monthly Mean		155
Normal Mean 1931-1933		227

Gemeiza (Bahr el Jebel)
(Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	428·48	571
Approx. Monthly Mean		556
Normal Mean 1931-1933		683

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12·91	732
Approx. Monthly Mean		712
Normal Mean 1931-1933		918

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·51	723
6	11·48	708
11	11·45	694
16	11·44	708
21	11·44	707
26	11·42	698
Approx. Monthly Mean		705
Normal Mean 1912-1933		831

Occasional Discharges

Observed by the Irrigation Department

Date	River	Site	Gauge Reading M.	Gauge Site	Disch. m.³ p.s.
		River Sobât and Tributaries			
3-12-1934	Khor Fullus	Mouth	14·04	H. Doleib	6
20-12-1934	" "	"	13·95	"	5
24-12-1934	" "	"	13·90	"	5
5-12-1934	Sobât	D.S. Khor Nyanding Junction	13·12	Nyanding Mouth	774
15-12-1934	"	" " " "	12·79	"	720
25-12-1934	"	" " " "	12·19	"	634
5-12-1934	Khor Nyanding	Mouth	13·12	"	30
15-12-1934	" "	"	12·79	"	8
25-12-1934	" "	"	12·19	"	32
4-12-1934	" Twalor	"	10·40	Nasser	86
14-12-1934	" "	"	9·96	"	48
24-12-1934	" "	"	9·38	"	50
3-12-1934	" Wakau	"	10·42	"	33
13-12-1934	" "	"	9·99	"	62
23-12-1934	" "	"	9·43	"	63
1-12-1934	" Geni	"	14·56	Akobo	4
11-12-1934	" "	"	14·20	"	5
21-12-1934	" "	"	13·55	"	6
1-12-1934	Akobo	"	14·56	"	7
11-12-1934	"	"	14·20	"	15
21-12-1934	"	"	13·55	"	8
10-12-1934	Agwei	"	14·26	"	19
20-12-1934	"	"	13·63	"	17
31-12-1934	"	"	13·05	"	12
		White Nile Tributaries			
5-12-1934	Tonga Cut	Mouth	13·14	Tonga	14
12-1934	"	"	13·11	"	36
12-1934	"	"	13·10	"	10
12-1934	Khor Lolle	U.S. Tonga Cut	13·14	"	18
12-1934	"	" " "	13·11	"	37
12-1934	"	" " "	13·10	"	16
12-1934	Khor Atar	Mouth	—	—	21
12-1934	Khor Yergol	"	14·34	Khor Yergol	4
12-1934	"	"	14·33	"	4
12-1934	Maya Sinyora	"	14·04	Lake Mo	6
16-12-1934	"	"	14·04	"	5
26-12-1934	"	"	14·02	"	5

P. Phillips,

Director, Hydrological Service.

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Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR FEBRUARY, 1935

The Weather

The main features were the unsettled weather of the first week, and the exceptional heat wave of the second week.

The month opened with rainy weather due to the presence of a depression over Syria. On the 2nd depressions were situated over the Aegean, Syria, and in the Libyan desert west of Aswan. The weather was mild, but underwent a rapid change on the following day when with the eastward movement of these depressions a current of cold air traversed Egypt from the northwest. A wind velocity of 109 kilometres an hour was registered at Alexandria, and winds reached gale force at many places in Egypt. Showers were wide-spread and near the coast were very heavy. At Borollos 70 millimetres of rain were recorded in three days. Unsettled weather continued for a few days, during which the cold northerly current penetrated to the southern Sudan.

On the 6th Egypt came under the influence of low pressure over the central Mediterranean which in conjunction with high pressure over Upper Egypt, gave rise to a broad current of warm southerly air. The temperature steadily rose day by day for a week, and on the 11th reached 33° C (91° F) in Cairo; this is a degree less than the highest on record for February. At Aswan 38° C (100° F) was registered. The following night was the warmest in Cairo in any February since observations began in 1909, the temperature not falling below 19° C (67° F). The depression arrived north of Egypt on the 12th and sandstorms occured throughout Lower Egypt. With the passage of the depression to Syria the northerly winds of its cold sector arrived in Egypt bringing a very rapid fall in temperature, to such an extent that on the 14th and 15th the maximum day temperature in Cairo was only as high as the minimum temperature of the previous night. For a few days showery weather prevailed along the coast and for a short distance inland. The cold air traversed Upper Egypt, causing gales and sand-storms, and eventually passed beyond the southern boundary of the Sudan.

Succeeding Mediterranean depressions had much less effect on the weather of Egypt which was a little cooler than usual for the time of year, but from the 25th to the end of the month, temperatures were again rising. In the early morning of the 25th an earthquake shock was felt throughout Lower Egypt.

For the month as a whole the barometric pressure was below normal throughout Egypt and the Sudan, except in the extreme south. The temperature was above normal in Egypt, and slightly below in the Sudan. Along the coast of the Delta the rainfall averaged eighty per cent above normal but further west along the coast and also inland, rainfall was distinctly below normal.

TABLE SHOWING THE DEPARTURE FROM NORMAL FOR FEBRUARY 1935

DISTRICTS	Barometric Pressure.		Temperature.						Rainfall	
			Maximum.		Minimum.		Max. + Min. 2.			
	1935.	Difference from Normal.	1935.	Difference from Normal.	1935	Difference from Normal.	1935.	Difference from Normal	1935.	Difference from Normal
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C	mm.	mm.
I. Mediterranean	1015·7	—1·3	20·2	+1·3	11·1	+0·9	15·6	+1·1	39	+13
II. Middle Egypt	1017·2	0·8	22·0	+1·5	8·6	+1·3	15·3	+1·4	5	— 4
III. Upper Egypt	1018·2	—0·2	24·1	+0·3	9·0	+1·0	16·6	+0·6	0	—
IV. North Sudan	1013·9	—0·2	30·8	—0·5	13·7	+0·1	22·2	[illegible]2	0	0
V. Red Sea *	1015·2	+0·5	27·0	—0·2	18·7	—0·4	22·8	0·3	0	—4
VI. Central Sudan	1011·8	—0·5	34·1	—0·5	14·2	—0·1	24·2	[illegible]3	0	0
VII. South Sudán	1010·8	+0·7	36·8	—0·5	20·2	+0·4	28·[illegible]	0	2	— 4

*Port Sudan only.

L. J. SUTTON
Director, Meteorological Service.

State of the River

Lake Albert at Butiaba fell 13 cms. during the month. Its level on March 1st 1935 was 4 cms, below the normal and 47 cms. below that of the corresponding day of last year.

The Bahr el Jebel at Juba remained almost steady during the month the levels being belows both the normal and last year's.

The River Sobat at Nasser, though in general still falling had a small rise about the middle of the month and a very small one at the end. The levels were above last year's throughout the month and above normal after the 10th.

The White Nile at Malakal fell rather slower than normally the levels were a few centimetres above both the normal and those of last year.

The Blue Nile at Roseires fell at normal rate during the first nine days, remained steady until the 15th, and then fell again at normal rate until the end of the month. The levels were above both the normal and last year's. At Khartoum the Blue Nile fell faster than normally reaching normal level at the end of the month but remaining above last year's throughout.

The Main Nile at Kajnarti fell faster than normally, but the levels remained above both the normal and those of last year during the whole month.

The differences of the mean levels in February 1935 from those of February 1934 and from the normal 1906-30 were:—

STATION	MEAN DIFFERENCES OF LEVELS	
	Feb. 1935 minus Feb. 1934	Feb. 1935 minus Normal
	Metres	Metres
Juba	— 0·26	— 0·10
Nasser	+ 0·21	+ 0·04 †
Malakal	+ 0·03	+ 0·14
Roseires	+ 0·20	+ 0·37
Khartoum	+ 0·12	+ 0·19
Kajnarti	+ 0·20	+ 0·38

† Nasser normal is for 1922–1930 only.

Discharges of the Nile during January, 1935

Observed by the Irrigation Department.

Esna (D.S. Barrage)

(Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	72·81	1030
8	72·82	1020
15	73·15	1310
22	73·25	1240
29	73·17	1250
pprox. Monthly Mean		1180

Aswân

(Measured by Sluices)
(Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	86·14	1170
2	86·14	1170
3	86·13	1170
4	86·12	1160
5	86·12	1160
6	86·12	1160
7	86·12	1160
8	86·12	1160
9	86·12	1160
10	86·12	1160
11	86·12	1160
12	86·12	1160
13	86·30	1290
14	86·48	1390
15	86·52	1420
16	86·54	1420
17	86·54	1420
18	86·50	1410
19	86·50	1410
20	86·48	1390
21	86·46	1380
22	86·44	1370
23	86·44	1370
24	86·50	1420
25	86·53	1440
26	86·50	1420
27	86·50	1420
28	86·49	1420
29	86·48	1420
30	86·48	1420
31	86·50	1420
Approx. Monthly Mean		1310
Normal Mean 1912-1934		1120

Kajnarty (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	134·49	1670
2	134·46	1660
3	134·45	1660
4	134·42	1650
9	134·40	1640
10	134·39	1640
11	134·39	1630
12	134·39	1630
14	134·34	1620
15	134·30	1610
16	134·28	1600
20	134·15	1520
21	134·12	1500
22	134·10	1480

Kajnarty (*contd.*).

Day of Month	Gauge Reading m.	Disch. m³. p.s.
23	134·10	1480
24	134·08	1470
25	134·05	1460
26	134·04	1460
28	134·04	1460
29	134·02	1440
30	133·98	1440
31	133·94	1420
Approx. Monthly Mean		1560
Normal Mean 1912-1934		1350

Hassanab (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	11·95	1570
14	11·85	1470
19	11·81	1440
25	11·71	1340
28	11·67	1270
31	11·65	1280
Approx. Monthly Mean		1440
Normal Mean 1912-1934		1240

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	11·38	1570
10	11·28	1460
15	11·28	1450
21	11·16	1350
21	11·10	1310
27	11·04	1270
Approx. Monthly Mean		1410
Normal Mean 1912-1934		1180

Soba (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·16	428
8	10·93	409
13	10·87	364
19	10·68	304
22	10·58	277
25	10·51	266
Approx. Monthly Mean		336
Normal Mean 1912-1934		265

Hillet Shérif (Blue Nile)

(Old Sennar Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	10·51	348
5	10·46	331
7	10·45	331
9	10·42	316
12	10·30	286
14	10·24	257
16	10·18	246
19	10·11	220
21	10·08	214
23	10·08	222
26	10·05	219
28	10·04	209
30	10·03	209
Approx. Monthly Mean		264
Normal Mean 1912-1934		239

Gezira Main Canal

(Kilo 1·3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	15·61	50
1	15·61	51
16	15·71	57
16	15·71	53
Approx. Monthly Mean		53
Normal Mean 1926-1934		46

Roseires (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12·96	437
3	12·92	419
5	12·86	404
7	12·79	384
9	12·72	372
11	12·67	353
13	12·62	341
15	12·58	324
17	12·53	314
19	12·50	308
21	12·45	295
23	12·42	287
25	12·39	266
27	12·35	261
29	12·32	255
31	12·28	245
Approx Monthly Mean		329
Normal Mean 1912-1934		283

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	11·76	1080
9	11·63	1100
14	11·63	1130
20	11·45	1100
23	11·39	1070
26	11·34	1030
Approx. Monthly Mean		1080
Normal Mean 1912-1934		915

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	12·27	1100
10	12·04	1020
15	11·77	895
20	11·48	810
25	11·23	724
30	11·01	715
Approx. Monthly Mean		901
Normal Mean 1912-1934		815

Hillet Doleib (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	13·62	559
9	13·32	407
14	13·02	296
19	12·65	193
24	12·35	177
29	12·14	136
Approx. Monthly Mean		303
Normal Mean 1912-1934		319

Nasser (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	8·17	307*
8	7·48	294
9	7·33	297
10	7·20	254
12	6·88	230
13	6·74	217
14	6·61	204
15	6·50	198
16	6·40	182
17	6·30	172
19	6·14	150
20	6·06	139
21	6·01	140
22	5·96	136
23	5·90	129
24	5·86	126
26	5·78	117
27	5·74	108
28	5·70	106
29	5·67	107
30	5·65	108
31	5·62	101
Approx. Monthly Mean		200
Normal Mean 1929-1934		179

River Gila (At Mouth)

(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	8·16	69

River Pibor

(U.S. Gila Junction)
(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	8·16	33

Akobo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
Dec. 15	13·97	25
20	13·62	24
25	13·35	18
30	13.10	12
Approx. Monthly Mean		25
Normal Mean 1929-1933		39
Jan. 5	12·66	13
10	12·16	12
15	11·51	8
31	10.46	4
Approx. Monthly Mean		—
Normal Mean 1929-1934		10

Bahr el Zerâf (Kilo. 3)

(Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·78	198
18	12·45	207
28	12·16	200
Approx. Monthly Mean		202
Normal Mean 1912-1934		152

NOTE: Old Sennar Gauge Readings have been corrected owing to the subsidence of the Gauge.
* Measured at River Sobât Head.

Discharges of the Nile during January, 1935 (*continued*)

Observed by the Irrigation Department.

Abu Tong (White Nile)
(Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·94	334
18	12·68	360
28	12·46	368
Approx. Monthly Mean		349
Normal Mean 1923-1934		322

Lake No (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·01	305
17	13·99	326
27	13·94	342
Approx. Monthly Mean		323
Normal Mean 1923-1934		304

Bahr el Ghazal
(At Mouth)
(Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·08	—14
17	14·08	21
27	14·03	38
Approx. Monthly Mean		14
Normal Mean 1923-1934		17

Bahr el Jebel (Kilo. 3.)
(Lake No Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14.01	302
17	13.99	309
27	13.94	315
Approx. Monthly Mean		309
Normal Mean 1923-1934		291

Gigging (Bahr el Jebel)
(Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	28·51	147
Approx. Monthly Mean		138
Normal Mean 1931-1934		196

Gemeiza (Bahr el Jebel)
(Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	428·37	538
Approx. Monthly Mean		524
Normal Mean 1931-1934		621

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12.78	691
Approx. Monthly Mean		657
Normal Mean 1931-1934		826

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·40	701
6	11·37	681
11	11·35	670
16	11·34	648
21	11·32	654
26	11·30	635
Approx. Monthly Mean		659
Normal Mean 1912-1934		752

Meshra Surrour (Bahrel Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	8.59	717
5	8.60	706
6	8.60	706
6	8.58	720
7	8.59	695
7	8.58	716

Occasional Discharges

Observed by the Irrigation Department

Date	River	Site	Gauge Reading	Gauge Site	Disch. m.³ p.s.
			M.		
		River Sobât and Tributaries			
3-1-1935	Khor Fullus	Mouth	13·62	H. Doleib	4
20-1-1935	" "	"	12·60	"	5
21-1-1935	" "	"	12·35	"	5
6-1-1935	Sobât	D.S. Khor Nyanding Junction	10·66	Nyanding Mouth	404
6-1-1935	Khor Nyanding	Mouth	10·66	"	9
1-1-1935	" Twalor	"	8·02	Nasser	9
3-1-1935	" Wakau	"	8·12	"	41
1-1-1935	" Geni	"	13·00	Akobo	5
1-1-1935	Akobo	"	13·00	"	4
		White Nile Tributaries			
5-1-1935	Tonga Cut	Mouth	13·00	Tonga	22
16-1-1935	"	"	12·73	"	28
25-1-1935	"	"	12·50	"	25
5-1-1935	Khor Lolle	U.S. Tonga Cut	13·00	"	34
16-1-1935	"	" " "	12·73	"	32
25-1-1935	"	" " "	12·50	"	29
19-1-1935	Khor Atar	Mouth	12·33	Fenikang	— 24
24-1-1935	" "	"	12·07	"	8
16-1-1935	Khor Yergol	"	14·13	Khor Yergol	— 11
6-1-1935	Maya Sinyora	"	14·02	Lake No	7
17-1-1935	"	"	13·99	"	6
26-1-1935	"	"	13·94	"	6

Correction :—Khor Geni discharges published in June and July, 1934 are negative.

P. Phillips,

Director, Hydrological Service.

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Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR MARCH, 1935

The Weather

Mild; changeable, with four heat waves.

During the first three days a depression over Greece caused southerly winds and warm weather in Lower Egypt, the temperature in Cairo on the 3rd reaching 31° C. (88° F.), and moderate sandstorms occurred in several localities. Cool weather followed for a few days, but on the 9th the temperature again rose with easterly winds. On the 12th a depression from the interior of the Sahara appeared south of Siwa and strong easterly winds prevailed throughout Egypt, the weather steadily becoming much warmer. On the 14th the depression passed over the Delta, and temperatures were from 12° to 14°C. above the normal. In Cairo 36° C. (97° F.) was registered. A rapid change took place with the arrival of the cool northwest winds on the passage of this depression. At Alexandria a velocity of 83 kilometres an hour was recorded, light showers were general, and on the 16th the temperature did not rise above 20° C. (68° F.).

A small depression from the Libyan desert crossed Lower Egypt on the 18th causing warm southerly winds, but by the following day northwesterly winds again prevailed in Egypt and cool weather was experienced for five days. Scattered showers occurred throughout Lower Egypt but were nowhere heavy. During the last week a deep depression arrived from the Libyan desert, crossing Egypt on the 29th. On the coast in the west heavy rain fell, 16 millimetres being recorded at Salum and 32 at Mersa Matruh. In the Delta only light showers occurred. The westerly winds in the cold sector of the depression reached gale force and at Alexandria attained a velocity of 93 kilometres an hour. Severe storms of wind and rain took place throughout the eastern Mediterranean on the 30th.

For the month as a whole the barometric pressure was well below normal, and the temperature above normal, in all districts throughout Egypt and the Sudan. Rainfall was below normal in Egypt, and slightly above in the Southern Sudan.

TABLE SHOWING THE DEPARTURE FROM NORMAL FOR MARCH 1935

DISTRICTS	Barometric Pressure.		Temperature.						Rainfall	
			Maximum.		Minimum.		Max.+Min. 2.			
	1935.	Difference from Normal.	1935.	Difference from Normal.	1935.	Difference from Normal.	1935.	Difference from Normal	1935.	Difference from Normal
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.
I. Mediterranean	1014·9	—1·0	21·3	+0·5	12·7	+0·6	17·0	+0·6	9	— 2
II. Middle Egypt	1015·5	—0·9	25·3	+1·1	10·2	+0·6	17·8	+0·8	1	— 4
III. Upper Egypt	1014·2	—1·6	29·6	+1·0	12·2	+0·9	20·9	+1·0	0	0
IV. North Sudan	1009·8	—1·9	36·3	+1·2	18·8	+2·0	27·6	+1·6	0	0
V. Red Sea *	1012·3	—0·7	29·3	+0·6	21·2	+1·5	25·2	+1·0	0	— 1
VI. Central Sudan	1007·7	—2·3	38·6	+1·0	19·9	+2·7	29·2	+1·8	3	+ 2
VII. South Sudan	1008·4	—0·6	38·7	+0·7	23·1	+1·6	30·9	+1·2	29	+ 7

*Port Sudan only.

L. J. SUTTON
Director, Meteorological Service.

State of the River

Lake Albert at Butiaba fell 8 centimetres during the month. Its level on April 1st 1935, was 4 centimetres below the normal and 41 centimetres below that of the corresponding day of last year.

The Bahr el Jebel at Juba remained steady throughout the month, the levels being below both the normal and last year's.

The River Sobat at Nasser fell faster than normally for the first 20 days and then rose rapidly and continuously until the end of the month, when the level was 67 centimetres above normal and 110 centimetres above that of the corresponding day of last year.

The White Nile at Malakal fell rather faster than normally until the 27th and then rose slightly during the last four days. The levels were a few centimetres above normal and practically the same as last year's.

The Blue Nile at Roseires fell steadily until the 23rd and rose sharply thereafter. The levels were continuously above both the normal and those of last year. At Khartoum the Blue Nile fell almost identically with the normal until the 21st and remained steady thereafter.

The Main Nile at Kajnarti fell at about normal rate the levels being on the average a few centimetres above normal and about 20 centimetres above last year's.

The differences of the mean levels in March 1935 from those of March 1934 and from the normal 1906–1930 were:

STATION	Mean Differences of Levels	
	March 1935 minus March 1934	March 1935 minus Normal
	Metres	Metres
Juba	— 0·23	— 0·12
Nasser	+ 0·25	— 0·06 †
Malakal	0·00	+ 0·11
Roseires	+ 0·23	+ 0·28
Khartoum	+ 0·05	— 0·03
Kajnarti	+ 0·21	+ 0·06

† Nasser normal is for 1922–1930 only.

Discharges of the Nile during February, 1935

Observed by the Irrigation Department.

Esna (D.S. Barrage)
(Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	73·18	1300
12	72·74	1100
19	72·73	999
26	72·40	833
Approx. Monthly Mean		1070

Aswân
(Measured by Sluices)
(Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	86·49	1400
2	86·44	1370
3	86·42	1360
4	86·38	1340
5	86·36	1310
6	86·30	1280
7	86·22	1230
8	86·14	1190
9	86·08	1150
10	86·02	1120
11	86·00	1110
12	86·00	1110
13	86·05	1150
14	86·14	1180
15	86·10	1160
16	86·07	1150
17	86·04	1130
18	86·00	1110
19	85·96	1080
20	85·92	1070
21	85·89	1050
22	85·84	1020
23	85·78	983
24	85·72	949
25	85·66	918
26	85·62	903
27	85·60	902
28	85·60	902
Approx. Monthly Mean		1130
Normal Mean 1912-1934		945

Kajnarty (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	133·87	1400
2	133·81	1370
5	133·71	1300
6	133·70	1310
7	133·68	1300
9	133·65	1300
10	133·61	1270
11	133·59	1260
12	133·57	1260
13	133·54	1240
15	133·39	1190
16	133·36	1170
17	133·28	1140
18	133·26	1130
19	133·25	1120
20	133·20	1100
21	133·13	1080
22	133·07	1070

Kajnarty (*contd.*).

Day of Month	Gauge Reading m.	Disch. m³. p.s.
23	133·00	1010
26	132·86	956
27	132·84	948
Approx. Monthly Mean		1180
Normal Mean 1912-1934		976

Hassanab (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	11·50	1030
10	11·46	1080
16	11·35	984
19	11·22	846
23	11·19	882
28	11·11	791
Approx. Monthly Mean		996
Normal Mean 1912-1934		877

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	10·95	1220
6	10·83	1140
11	10·68	1040
15	10·56	966
19	10·42	912
24	10·34	859
Approx. Monthly Mean		1000
Normal Mean 1912-1934		862

Soba (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	10·43	240
4	10·38	230
9	10·12	194
13	10·11	185
17	10·07	186
22	10·08	194
Approx. Monthly Mean		200
Normal Mean 1912-1934		167

Hillet Shérif (Blue Nile)
(Old Sennar Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·90	166
4	9·87	163
6	9·87	164
9	9·87	167
11	9·88	165
13	9·90	176
16	9·90	172
19	9·95	190
21	9·95	185
23	9·96	188
25	9·96	188
27	9·96	190
Approx. Monthly Mean		176
Normal Mean 1912-1934		176

Gezira Main Canal
(Kilo 1·3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	15·63	49
3	15·64	51
17	15·67	56
17	15·67	54
Approx. Monthly Mean		54
Normal Mean 1926-1934		46

Roseires (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	12·25	239
4	12·21	227
6	12·16	218
8	12·13	217
10	12·12	214
12	12·12	214
14	12·11	206
16	12·09	205
18	12·04	192
20	11·99	186
22	11·94	178
24	11·91	167
26	11·87	162
28	11·84	156
Approx Monthly Mean		201
Normal Mean 1912-1934		186

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	11·23	993
5	11·11	905
10	10·98	868
14	10·88	789
18	10·70	700
23	10·67	665
Approx. Monthly Mean		790
Normal Mean 1912-1934		693

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	10·81	651
10	10·71	642
15	10·65	600
20	10·62	624
25	10·57	588
Approx. Monthly Mean		627
Normal Mean 1912-1934		651

Hillet Doleib (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	11·96	117
9	11·83	90
14	11·75	86
19	11·74	94
23	11·68	87
28	11·62	58
Approx. Monthly Mean		92
Normal Mean 1912-1934		175

Nasser (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	5·56	98
3	5·53	97
4	5·51	93
5	5·50	91
6	5·49	91
7	5·45	86
9	5·40	82
10	5·42	86
11	5·54	105
12	5·61	111
13	5·60	108
14	5·54	104
16	5·44	93
17	5·44	93
18	5·42	94
19	5·38	87
20	5·36	84
21	5·32	84
23	5·26	79
24	5·22	73
25	5·22	76
26	5·26	80
27	5·26	78
28	5·28	80
Approx. Monthly Mean		90
Normal Mean 1929-1934		84

Akobo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
Jan. 20	10·96	6
25	10·72	5
Approx. Monthly Mean		8
Normal Mean 1929-1934		10
Feb. 5	10·26	3
10	10·18	2
15	10·06	2
20	10·10	2
25	10·01	1
28	9·96	1
Approx. Monthly Mean		2
Normal Mean 1929-1934		2

Bahr el Zerâf (Kilo. 3)
(Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	11·98	192
18	11·88	183
27	11·83	178
Approx. Monthly Mean		187
Normal Mean 1912-1934		146

Abu Tong (White Nile)
(Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·27	356
18	12·19	332
27	12·14	345
Approx. Monthly Mean		347
Normal Mean 1923-1934		323

Discharges of the Nile during February, 1935 *(continued)*

Observed by the Irrigation Department.

Lake No (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·88	325
17	13·83	338
26	13·80	345
Approx. Monthly Mean		336
Normal Mean 1923-1934		315

Bahr el Ghazal

(At Mouth)

(Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·97	45
17	13·94	21
26	13·90	31
Approx. Monthly Mean		33
Normal Mean 1923-1934		18

Bahr el Jebel (Kilo. 3.)

(Lake No Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13.88	316
17	13.83	313
26	13.80	323
Approx. Monthly Mean		317
Normal Mean 1923-1934		300

Gigging (Bahr el Jebel)

(Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	28·34	126
Approx. Monthly Mean		124
Normal Mean 1931-1934		180

Gemeiza (Bahr el Jebel)

(Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	428·24	508
Approx. Monthly Mean		498
Normal Mean 1931-1934		592

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12.66	621
Approx. Monthly Mean		603
Normal Mean 1931-1934		781

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·26	631
6	11·29	629
11	11·26	627
16	11·25	628
21	11·22	613
26	11·20	609
Approx. Monthly Mean		621
Normal Mean 1912-1934		702

Occasional Discharges

Observed by the Irrigation Department

Date	River	Site	Gauge Reading	Gauge Site	Disch. m.³ p.s.
			M.		
		River Sobât Tributaries			
3-2-1935	Khor Fullus	Mouth	11·96	H. Doleib	5
19-2-1935	" "	"	11·74	"	4
23-2-1935	" "	"	11·68	"	3
		White Nile Tributaries			
5-2-1935	Tonga Cut	Mouth	12·28	Tonga	— 7
16-2-1935	"	"	12·20	"	3
24-2-1935	"	"	12·14	"	15
5-2-1935	Khor Lolle	U.S. Tonga Cut	12·28	"	— 23
16-2-1935	"	" " "	12·20	"	4
24-2-1935	"	" " "	12·14	"	6
6-2-1935	Maya Sinyora	Mouth	13·88	Lake No	4
16-2-1935	"	"	13·84	"	1

P. Phillips,
Director, Hydrological Service.

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Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR APRIL, 1935

The Weather

The outstanding feature of the weather of April was the intense heat wave which began on the 24th and continued to the end of the month.

On the 2nd a well defined cold front reached Egypt following the passage of a depression along the Mediterranean. Unusually cool weather with fresh northerly winds prevailed for a few days, and light showers occurred near the coast.

On the 7th a depression centred over Crete with a secondary in the Libyan desert west of Siwa Oasis gave rise to easterly winds in Egypt and the weather rapidly became warmer. Within two days these depressions had passed and Egypt was traversed by strong northwest winds, accompanied by a pronounced drop in temperature. Sandstorms were general. Subsequently cool weather with winds chiefly from the west prevailed for a fortnight, but the remainder of the month provided a very marked contrast.

On the 22nd the pressure began to fall owing to the advance of a series of depressions. With their approach the wind became easterly and the temperature rapidly rose. On the 24th a depression was passing along the Mediterranean coast of Egypt. The temperature in Cairo rose to 38° C. The cold front of this depression crossed the Egyptian coast on the following day causing a sharp fall of temperature and thick fog along the coast especially in the west, but the presence of a shallow depression near Siwa Oasis prevented the cool air from penetrating inland, where the hot weather was therefore maintained. The rapid arrival of another depression over Benghasi again resulted in hot southeasterly winds. By the 27th the depression had reached Cyprus and the air of its cool sector had crossed the coast, again causing thick coastal fog and a sharp fall in temperature, but a second time this was prevented from reaching Cairo by the arrival of a small depression over Siwa Oasis.

Succeeding shallow depressions prolonged the hot spell for the rest of the month. The daily maximum temperatures on the coast and in Cairo were as follows :—

	Matruh	Alexandria	Cairo
	°C	°C	°C
23rd	32	27	32
24th	34	32	38
25th	26	26	39
26th	40	38	42
27th	21	32	42
28th	22	27	41
29th	28	33	41
30th	38	41	43

On the 26th Mersa Matruh was almost as hat as Cairo, while on the next day the temperature was only 21° C (70° F) as against 42° C (108° F) in Cairo. The temperature on the 30th in Cairo, 43° C (109. 4° F) exceeded the previous record for April by a fraction of a degree. The records extend over 67 years.

For the month as a whole the atmospheric pressure was above normal in all districts except the central Sudan. Owing to the cool spell in the middle of the month the temperature was slightly below normal except in Lower Egypt and the southern Sudan. The rainfall was deficient except in the northern and central Sudan.

TABLE SHOWING THE DEPARTURE FROM NORMAL FOR APRIL 1935

DISTRICTS.	BAROMETRIC PRESSURE.		TEMPERATURE.						RAINFALL.	
			MAXIMUM.		MINIMUM.		MAX.+MIN./2.			
	1935.	Difference from Normal.	1935.	Difference from Normal.	1935.	Difference from Normal.	1935.	Difference from Normal.	1935.	Difference from Normal.
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.
I. Mediterranean	1014·6	+0·4	23·9	+0·6	14·2	—0·2	19·0	+0·2	0	— 3
II. Middle Egypt	1015·0	+0·6	29·7	+1·4	12·5	+0·2	21·1	+0·8	1	— 3
III. Upper Egypt	1014·2	+1·2	33·0	—0·4	14·6	—1·0	23·8	—0·7	0	—
IV. North Sudan	1010·3	+0·9	37·8	—1·4	19·7	—0·8	28·8	—1·1	11	+10
V. Red Sea *	1012·6	+1·5	31·1	- 0·4	21·0	—0·4	26·0	—0·4	0	— 1
VI. Central Sudan	1008·0	—0·2	39·6	—0·8	20·6	+0·3	30·1	—0·2	5	+ 1
VII. South Sudan	1009·2	+0·2	37·6	+0·4	22·8	+0·4	30·2	+0·4	49	—20

*Port Sudan only.

L. J. SUTTON
Director, Meteorological Service.

State of the River

Lake Albert at Butiaba fell 5 cms. during the month. Its level on May 1st 1935 was 9 cms. below the normal and 40 cms. below that of the corresponding day of last year.

The Bahr el Jebel at Juba rose with fluctuations until the 12th, and then fell steadily until the end of the month when the level was 43 cms. below normal and 56 cms. below last year's.

The River Sobat at Nasser rose with fluctuations until the 12th. when it reached a peak 57 cms. above normal ; there after the level fell rapidly and was 52 cms. below normal at the end of the month.

The white Nile at Malakal rose during the first half of the month but fell again during the second. The levels were above normal throughout but below last years after the 22nd.

The Blue Nile at Roseires fluctuated above normal during the month. The levels were on the average about 40 cms. above normal and about 35 cms. above last year's. At Khartoum the Blue Nile was almost steady for the first five days, then rose until the 9th, remained steady until the 23rd, an fell again until the end of the month. The leveles on the average were about 20 cms. above last year's but about 10 cms. below the normal.

The Main Nile at Kajnarti fell steadily until the 20th, and then rose for the rest of the month. The levels were on the average a few cms. below normal but slightly above last year's.

The differences of the mean levels in April 1935 from those of April 1934 and from the normal 1906-1930 were :—

STATION.	Mean Differences of Levels	
	April 1935 minus March 1934.	April 1935 minus Normal.
	Metres	Metres
Juba	— 0·21	— 0·15
Nasser	+ 0·37	+ 0·13 †
Malakal	+ 0·12	+ 0·29
Roseires	+ 0·33	+ 0·39
Khartoum	+ 0·22	— 0·11
Kajnarti	+ 0·11	— 0·04

† Nasser normal is for 1922–1930 only.

Discharges of the Nile during March, 1935

Observed by the Irrigation Department.

Esna (D.S. Barrage)

(Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	72·32	892
12	72·32	843
19	72·32	859
26	72·20	810
Approx. Monthly Mean		848

Aswân

(Measured by Sluices)
(Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	85·59	891
2	85·58	891
3	85·57	891
4	85·62	917
5	85·62	915
6	85·62	915
7	85·62	915
8	85·62	918
9	85·60	917
10	85·60	917
11	85·60	916
12	85·60	915
13	85·58	916
14	85·58	916
15	85·59	920
16	85·60	915
17	85·58	915
18	85·58	915
19	85·57	915
20	85·58	914
21	85·54	893
22	85·54	892
23	85·54	892
24	85·48	870
[illegible]		
[illegible]		
27	[illegible]	[illegible]
[illegible]		
[illegible]		
[illegible]		
[illegible]		
[illegible]		
Normal Mean 1912-1934		766

Kajnarty (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	132·62	868
4	132·57	862
5	132·57	859
6	132·54	847
7	132·52	836
9	132·48	832
10	132·46	829
11	132·44	820
12	132·42	816
13	132·40	813
17	132·31	792
18	132·33	799
19	132·31	795
20	132·30	787
22	132·23	770

Kajnarty (*contd.*).

Day of Month	Gauge Reading m.	Disch. m³. p.s.
23	132·20	759
24	132·13	739
25	132·12	738
26	132·13	741
27	132·13	732
28	132·10	729
30	132·06	719
31	132·00	693
Approx. Monthly Mean		797
Normal Mean 1912-1934		726

Hassanab (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	11·09	800
11	11·02	755
18	10·99	710
25	10·88	676
29	10·88	687
Approx. Monthly Mean		732
Normal Mean 1912-1934		693

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	10·32	825
7	10·26	786
14	10·20	754
21	10·11	684
25	10·07	686
28	10·06	678
Approx. Monthly Mean		737
Normal Mean 1912-1934		704

Soba (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	10·09	195
5	10·06	186
12	9·88	168
19	9·82	153
23	9·78	154
26	9·77	146
Approx. Monthly Mean		164
Normal Mean 1912-1934		149

Hillet Shérif (Blue Nile)

(Old Sennar Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·84	159
4	9·83	161
6	9·83	155
9	9·82	161
11	9·80	156
13	9·79	146
16	9·78	145
18	9·78	146
20	9·78	148
23	9·82	163
26	9·82	157
28	9·81	155
30	9·80	159
Approx. Monthly Mean		155
Normal Mean 1912-1934		149

Gezira Main Canal

(Kilo 1·3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	15·74	55
3	15·74	55
19	15·80	59
19	15·80	61
Approx. Monthly Mean		61
Normal Mean 1926-1934		52

Roseires (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	11·80	152
4	11·78	147
6	11·74	144
8	11·71	134
10	11·68	128
12	11·66	124
14	11·62	122
16	11·60	122
18	11·57	117
20	11·54	110
22	11·52	108
24	11·52	110
26	11·62	129
28	11·85	164
30	11·92	179
Approx Monthly Mean		134
Normal Mean 1912-1934		130

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	10·64	658
6	10·58	622
13	10·48	596
20	10·42	564
24	10·33	546
27	10·35	557
Approx. Monthly Mean		588
Normal Mean 1912-1934		558

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	10·52	604
5	10·47	598
10	10·40	575
15	10·30	584
20	10·22	562
25	10·18	522
30	10·22	549
Approx. Monthly Mean		569
Normal Mean 1912-1934		577

Hillet Doleib (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	11·59	59
9	11·49	52
14	11·41	32
19	11·31	27
24	11·25	38
29	11·28	58
Approx. Monthly Mean		46
Normal Mean 1912-1934		118

Nasser (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	5·25	78
3	5·21	73
4	5·16	72
5	5·12	66
6	5·10	64
7	5·07	61
9	5·01	57
10	4·97	55
11	4·94	51
12	4·92	51
13	4·91	49
14	4·90	50
16	4·86	46
17	4·84	45
18	4·83	43
19	4·82	44
20	4·83	43
21	4·85	47
23	4.96	54
24	5·00	56
25	5·08	63
26	5·16	72
27	5·28	84
28	5·44	98
Approx. Monthly Mean		65
Normal Mean 1929-1934		62

Akobo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	9·88	1
10	9·78	1
15	9·67	1
20	9·62	1
25	9·76	2
30	10·04	2
Approx. Monthly Mean		1
Normal Mean 1929-1934		1

Bahr el Zerâf (Kilo. 3)

(Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	11·76	170
18	11·66	158
28	11·59	156
Approx. Monthly Mean		163
Normal Mean 1912-1934		140

Abu Tong (White Nile)

(Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·07	348
18	11·97	356
28	11·91	340
Approx. Monthly Mean		348
Normal Mean 1923-1934		312

Lake No (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·76	338
17	13·71	338
27	13·68	346
Approx. Monthly Mean		341
Normal Mean 1923-1934		314

Discharges of the Nile during March, 1935 (*continued*)

Observed by the Irrigation Department.

Bahr el Ghazal
(At Mouth)
(Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·87	27
17	13·83	17
27	13·77	34
Approx. Monthly Mean		26
Normal Mean 1923-1934		14

Bahr el Jebel (Kilo. 3.)
(Lake No Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13.76	321
17	13.71	315
27	13.68	316
Approx. Monthly Mean		318
Normal Mean 1923-1934		302

Gigging (Bahr el Jebel)
(Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	28·22	121
Approx. Monthly Mean		119
Normal Mean 1931-1934		189

Gemeiza (Bahr el Jebel)
(Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	428·13	485
Approx. Monthly Mean		485
Normal Mean 1931-1934		588

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12.50	583
Approx. Monthly Mean		586
Normal Mean 1931-1934		778

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·18	582
6	11·18	595
11	11·16	596
16	11·17	610
21	11·15	589
26	11·16	597
Approx. Monthly Mean		595
Normal Mean 1912-1934		678

Meshra Surrour
(Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	8·40	592
3	8·40	594
4	8·40	610
4	8·40	578
5	8·40	610
5	8·40	602

Occasional Discharges

Observed by the Irrigation Department

Date	River	Site	Gauge Reading	Gauge Site	Disch. m.³ p.s.
			M.		
		River Sobât Tributaries			
3-3-1935	Khor Fullus	Mouth	11·59	H. Doleib	2
		White Nile Tributaries			
5-3-1935	Tonga Cut	Mouth	12·05	Tonga	— 5

P. Phillips,
Director, Hydrological Service.

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Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR MAY, 1935

The Weather

The intense heat wave which was in progress at the end of April continued for a few days into May, with southerly winds at times reaching gale force on the coast. At Alexandria the temperature on the 1st reached 44° C (111° F), which is the highest recorded there in May for at least forty-eight years. A similar temperature was registered in Cairo. The air was very dry, the humidity falling below ten per cent in the middle of the day.

By the 3rd the depression which had given rise to the hot weather arrived in Syria, and cool northwest winds traversed Egypt. Light showers occurred in a few places. The fall in temperature caused by the arrival of the north winds continued, and on the 6th the maximum temperature in Cairo was only 27° C (81° F). On the 10th a shallow depression appeared west of Wadi Halfa and passing over Upper Egypt gave rise to severe duststorms and thunderstorms. At Aswân 6 millimetres of rain fell in a short time. Cool weather was maintained in Egypt until the 12th, when a depression in the desert west of Siwa Oasis caused southerly winds, and the weather became much warmer. The depression quickly passed, and by the 16th the temperature had again fallen below the normal, but throughout the rest of the month the weather was very warm and unpleasantly damp. The prevailing winds were northeasterly. From the 20th to the 22nd a current of cool northwest air arrived over the Mediterranean coast of Egypt, but did not penetrate as far as Cairo. There was again a weakening of the heat wave on the 28th, but of short duration, and the weather became increasingly hotter towards the end of the month.

For the month as a whole the atmospheric pressure did not vary much from the normal, except in Upper Egypt, where it was low. Throughout Egypt the temperature was everywhere above normal, while in the Sudan it was slightly below. The highest temperature recorded in Egypt was 46° C (115° F), at Aswân, the lowest (night) was 9° C (48° F) at Tanta. At Alexandria the relative humidity was above normal on all except four days. Rainfall in the Sudan was normal in the south and above normal elsewhere.

TABLE SHOWING THE DEPARTURE FROM NORMAL FOR MAY 1935

DISTRICTS	BAROMETRIC PRESSURE		TEMPERATURE.						RAINFALL	
			MAXIMUM		MINIMUM		MAX.+MIN./2			
	1935.	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.
I. Mediterranean	1013·7	+0·3	27·0	+1·1	18·5	+1·2	22·8	+1·2	0	— 1
II. Middle Egypt	1013·4	0·0	34·6	+2·4	17·2	+1·3	25·9	+1·8	0	— 2
III. Upper Egypt	1010·4	—1·2	39·1	+2·3	21·6	+1·9	30·4	+2·1	1	—
IV. North Sudan	1008·6	0·0	40·9	—0·5	23·7	—0·4	32·3	—0·4	13	+ 8
V. Red Sea *	1010·2	+0·7	34·8	- 0·2	25·8	+2·0	30·3	+0·9	2	+ 1
VI. Central Sudan	1008·1	—0·3	38·8	—1·1	22·6	+0·1	30·7	—0·5	44	+21
VII. South Sudan	1011·0	+0·8	34·7	—0·2	22·0	0·0	28·4	—0·1	116	— 1

*Port Sudan only.

L. J. SUTTON
Director, Meteorological Service.

State of the River

Lake Albert at Butiaba rose 11 cms. during the month. Its level on June 1st, 1935, was 1 cm. below the normal and 28 cms. below that of the corresponding day of last year.

The Bahr el Jebel at Juba fluctuated above both the normal and last year's levels throughout the month. There were two big flushes on the 3rd and 14th 67 and 63 cms. respectively above the normal.

The River Sobat at Nasser rose rapidly the level which was 59 cms. below normal at the beginning being 53 cms. above normal at the end of the month. After the first week the levels were well above those of last year.

The White Nile at Malakal was steady for the first week and then rose faster than normally for the rest of the month. The levels were below last year's for the first half of the month, but above them thereafter and above normal throughout.

The Blue Nile at Roseires rose rapidly with fluctuations during the month. The level which was 35 cms. above normal at the beginning being 167 cms. above normal at the end. The rise of the Blue Nile flood is about a fortnight earlier than usual. At Khartoum the Blue Nile was almost steady for the first half of the month and rose rapidly thereafter.

The Main Nile at Kajnarti fell a few centimetres during the month. The levels were on the average a little below normal but above last year's.

The differences of the mean levels in May 1935 from those of May 1934 and from the normal 1906-30 were:—

STATION	MEAN DIFFERENCES OF LEVELS	
	May 1935 minus May 1934	May 1935 minus Normal
	Metres	Metres
Juba	— 0·09	— 0·02
Nasser	+ 0·68	+ 0·14 †
Malakal	+ 0·01	+ 0·26
Roseires	+ 1·01	+ 0·89
Khartoum	+ 0·27	+ 0·11
Kajnarti	+ 0·29	— 0·03

† Nasser normal is for 1922-1930 only.

Discharges of the Nile during April, 1935

Observed by the Irrigation Department.

Day of Month	Gauge Reading m.	Disch. m³. p.s.
na (D.S. Barrage)		
(Main Nile)		
3	72·20	820
9	72·16	786
6	72·18	817
3	72·20	816
x. Monthly Mean		822
Aswân		
(Measured by Sluices)		
(Aswân D.S. Gauge.)		
1	85·46	859
2	85·45	847
3	85·44	846
4	85·42	844
5	85·43	845
6	85·43	845
7	85·46	848
8	85·45	848
9	85·45	847
0	85·46	849
1	85·44	835
2	85·43	834
3	85·42	834
4	85·42	833
5	85·42	834
6	85·43	832
7	85·44	832
8	85·46	845
9	85·46	846
0	85·46	846
1	85·50	855
2	85·45	846
3	85·44	844
4	85·45	845
5	85·46	844
6	85·46	846
7	85·45	846
8	85·45	846
9	85·45	845
0	85·45	844
t. Monthly Mean		844
l Mean 1912-1934		714
jnarty (Main Nile)		
1	131·97	676
4	131·93	655
5	131·92	655
6	131·87	634
7	131·86	633
8	131·89	644
9	131·90	650
0	131·92	662
1	131·87	641
3	131·84	638
4	131·82	626
5	131·83	630
6	131·85	641
8	131·81	626
9	131·77	617
0	131·73	608
1	131·73	607
2	131·80	639

Day of Month	Gauge Reading m.	Disch. m³. p.s.
Kajnarty (*contd.*).		
23	131·89	676
25	131·95	683
26	131·97	681
28	131·99	693
29	132·00	693
30	132·02	695
Approx. Monthly Mean		653
Normal Mean 1912-1934		617
Hassanab (Main Nile)		
1	10·89	671
7	10·81	622
11	10·9[illegible]	761
15	10·92	702
20	10·94	731
26	10·93	775
30	10·86	720
Approx. Monthly Mean		714
Normal Mean 1912-1934		640
Tamaniât (Main Nile)		
3	10·05	656
7	10·02	665
11	10·15	712
16	10·17	727
22	10·19	748
26	10·11	715
Approx. Monthly Mean		707
Normal Mean 1912-1934		675
Soba (Blue Nile)		
1	9·81	147
5	9·78	143
9	10·27	199
14	10·21	196
20	10·22	198
24	10·16	190
30	9·72	150
Approx. Monthly Mean		179
Normal Mean 1912-1934		163
Hillet Shérif (Blue Nile)		
(Old Sennar Gauge)		
1	9·80	154
3	10·17	265
6	10·14	263
8	10·12	253
10	10·11	250
13	10·14	258
15	10·12	254
17	10·10	245
20	10·06	241
22	9·74	141
24	9·73	145
27	9·72	141
29	9·70	139
Approx. Monthly Mean		213
Normal Mean 1912-1934		195

Day of Month	Gauge Reading m.	Disch. m³. p.s.
Gezira Main Canal		
(Kilo 1·3)		
3	16·12	72
3	16·12	71
Approx. Monthly Mean		—
Normal Mean 1926-1934		21
Roseires (Blue Nile)		
1	12·[illegible]	214
3	11·12	176
5	11·85	169
7	11·87	168
9	12·03	205
11	11·88	169
13	11·85	165
15	11·75	152
17	11·64	129
19	11·54	113
21	11·50	109
23	11·50	110
25	11·52	111
27	11·56	118
29	11·59	123
Approx Monthly Mean		148
Normal Mean 1912-1934		117
Mogren (White Nile)		
2	10·34	552
6	10·28	518
10	10·40	532
15	10·40	535
21	10·46	550
25	10·34	519
Approx. Monthly Mean		535
Normal Mean 1912-1934		526
Malakâl (White Nile)		
5	10·39	619
10	10·40	593
15	10·45	603
20	10·38	598
25	10·25	549
Approx. Monthly Mean		588
Normal Mean 1912-1934		535
Hillet Doleib (River Sobât)		
4	11·50	121
9	11·52	129
14	11·57	154
19	11·50	126
24	11·37	71
30	11·26	77
Approx. Monthly Mean		112
Normal Mean 1912-1934		95

Day of Month	Gauge Reading m.	Disch. m³. p.s.
Nasser (River Sobât)		
2	5·90	151
3	5·88	144
4	5·82	138
6	5·72	127
7	5·76	133
8	5·85	144
9	5·86	144
10	5·92	152
11	6·03	167
13	5·99	160
14	5·90	146
15	5·76	134
16	5·66	118
17	5·55	110
18	5·47	99
20	5·33	86
21	5·28	85
22	5·25	81
23	5.24	78
24	5·24	79
25	5·24	78
27	5·34	92
28	5·36	93
29	5·34	88
30	5·32	89
Approx. Monthly Mean		118
Normal Mean 1929-1934		88
Akobo (River Pibor)		
5	10·37	2
10	10·35	1
15	10·50	2
20	10·30	1
25	10·02	1
30	10·08	2
Approx. Monthly Mean		2
Normal Mean 1929-1934		1
Bahr el Zerâf (Kilo. 3)		
(Gauge at Mouth)		
8	11·63	145
18	11·62	142
28	11·51	137
Approx. Monthly Mean		143
Normal Mean 1912-1934		131
Abu Tong (White Nile)		
(Tonga Gauge)		
8	11·94	322
18	11·91	340
28	11·83	338
Approx. Monthly Mean		334
Normal Mean 1923-1934		306
Lake No (White Nile)		
7	13·67	333
17	13·63	330
27	13·70	333
Approx. Monthly Mean		333
Normal Mean 1923-1934		309

Discharges of the Nile during April, 1935 (*continued*)

Observed by the Irrigation Department.

Bahr el Ghazal

(At Mouth)

(Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·76	15
17	13·74	10
27	13·70	19
Approx. Monthly Mean		16
Normal Mean 1923-1934		13

Bahr el Jebel (Kilo. 3.)

(Lake No Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13.67	314
17	13.73	319
27	13.70	316
Approx. Monthly Mean		316
Normal Mean 1923-1934		300

Gigging (Bahr el Jebel)

(Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	28·19	116
Approx. Monthly Mean		129
Normal Mean 1931-1934		184

Gemeiza (Bahr el Jebel)

(Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	428·11	486
Approx. Monthly Mean		500
Normal Mean 1931-1934		594

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12·47	590
Approx. Monthly Mean		604
Normal Mean 1931-1934		795

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·14	582
6	11·43	711
11	11·38	686
16	11·29	640
21	11·27	620
26	11·20	602
Approx. Monthly Mean		642
Normal Mean 1912-1934		722

Meshra Surrour

(Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
29	8·34	607
30	8·33	618

P. Phillips,

Director, Hydrological Service.

Govt. Press 2299-1935-250 ex.

June - Report on The Weather and State of The River missing.

Discharges of the Nile during May, 1935

Observed by the Irrigation Department.

Esna (D.S. Barrage)

(Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	72·44	991
14	72·65	1070
21	72·75	1150
28	72·93	1210
pprox. Monthly Mean		1096

Aswân

(Measured by Sluices)
(Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	85·64	950
2	85·67	960
3	85·69	968
4	85·73	987
5	85·74	998
6	85·76	1010
7	85·77	1010
8	85·78	1010
9	85·80	1030
10	85·84	1060
11	85·88	1080
12	85·93	1100
13	85·99	1120
14	86·01	1140
15	86·04	1150
16	86·06	1140
17	86·05	1140
18	86·04	1140
19	86·07	1160
20	86·10	1170
21	86·22	1240
22	86·24	1240
23	86·23	1240
24	86·24	1240
25	86·23	1240
26	86·23	1240
27	86·24	1240
28	86·31	1300
29	86·34	1300
30	86·32	1300
31	86.32	1300
pprox. Monthly Mean		1140
ormal Mean 1912-1934		805

Kajnarty (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	132·02	696
5	132·05	711
6	132·06	706
7	132·06	707
9	131·95	697
10	131·93	684
11	131·90	671
13	131·85	657
14	131·88	673
15	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
18	131·30	[illegible]
19	131·92	[illegible]
20	131·93	692

Kajnarty (*contd.*).

Day of Month	Gauge Reading m.	Disch. m³. p.s.
21	131·95	691
22	131·95	697
23	131·97	700
25	131·96	697
26	131·94	685
27	131·92	672
28	131·89	663
29	131·90	669
30	131·89	669
Approx. Monthly Mean		686
Normal Mean 1912-1934		632

Hassanâb (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	10·88	712
11	10·92	727
17	10·86	658
20	10·88	701
25	11·10	907
30	11·17	948
Approx. Monthly Mean		768
Normal Mean 1912-1934		686

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	10·10	708
7	10·13	714
13	10·12	703
16	10·09	722
21	10·33	848
26	10·52	973
Approx. Monthly Mean		812
Normal Mean 1912-1934		756

Soba (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	9·72	160
11	9·97	180
14	9·96	186
19	10·48	302
24	10·81	397
Approx. Monthly Mean		279
Normal Mean 1912-1934		225

Hillet Sherîf (Blue Nile)

(Old Sennar Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	9·90	141
4	9·96	214
6	9·94	205
8	9·93	209
11	10·16	212
13	10·26	317
15	10·44	347
18	10·58	449
20	10·54	445
25	10·70	491
27	10·84	567
29	10·87	589
Approx. Monthly Mean		[illegible]
Normal Mean 1912-1934		257

Roseires (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·78	155
3	11·92	183
5	11·94	184
7	11·99	193
9	12·24	256
11	12·61	358
13	12·90	430
15	12·64	359
17	12·76	382
19	13·04	488
21	13·08	506
23	13·06	494
25	13·30	587
27	13·28	576
29	13·36	593
31	13·99	854
Approx Monthly Mean		409
Normal Mean 1912-1934		265

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	10·37	549
6	10·38	552
12	10·36	535
15	10·35	542
20	10·60	564
25	10·78	611
Approx. Monthly Mean		567
Normal Mean 1912-1934		547

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	10·18	575
5	10·18	566
10	10·23	585
15	10·43	644
20	10·60	669
25	10·74	711
30	10·81	717
Approx. Monthly Mean		642
Normal Mean 1912-1934		586

Hillet Doleib (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
4	11·28	75
9	11·30	98
14	11·53	178
19	11·73	230
24	11·90	282
29	11·93	292
Approx. Monthly Mean		[illegible]
Normal Mean 1912-1934		2

Nasser (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	5·30	86
2	5·27	83
4	5·34	90
5	5·42	98
6	5·52	111
7	5·66	125
8	5·86	152
9	6·06	173
11	6·21	184
12	6·22	185
13	6·32	198
14	6·49	222
15	6·58	233
16	6·69	246
18	7·00	287
19	7·08	293
20	7·14	297
21	7·18	301
22	7.14	290
Approx. Monthly Mean		237
Normal Mean 1929-1934		186

Akobo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	10·14	3
10	10·66	2
15	11·14	3
20	11·47	3
25	11·77	2
31	12·57	27
Approx. Monthly Mean		5
Normal Mean 1929-1934		2

Bahr el Zerâf (Kilo. 3)

(Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	11·48	137
18	11·61	133
28	11·73	131
Approx. Monthly Mean		134
Normal Mean 1912-1934		127

Abu Tong (White Nile)

(Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	11·83	338
18	11·91	323
28	11·98	314
Approx. Monthly Mean		326
Normal Mean 1923-1934		300

Lake No (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·72	336
17	13·72	334
27	13·72	325
[illegible]	[illegible]	[illegible]

Discharges of the Nile during May, 1935 (*continued*)

Observed by the Irrigation Department.

Bahr el Ghazâl (At Mouth) (Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·72	20
17	13·72	23
27	13·72	14
Approx. Monthly Mean		19
Normal Mean 1923-1934		12

Bahr el Jebel (Kilo. 3.) (Lake No Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13.72	315
17	13.72	310
27	13.72	321
Approx. Monthly Mean		315
Normal Mean 1923-1934		299

Gigging (Bahr el Jebel) (Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	28·40	146
Approx. Monthly Mean		188
Normal Mean 1931-1934		220

Gemeîza (Bahr el Jebel) (Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	428·26	518
Approx. Monthly Mean		646
Normal Mean 1931-1934		669

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12·56	619
Approx. Monthly Mean		830
Normal Mean 1931-1934		926

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·22	604
6	11·40	686
11	12·52	1160
16	12·22	991
21	11·85	876
26	11·77	846
Approx. Monthly Mean		870
Normal Mean 1912-1934		871

Meshra Surroûr (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	8·33	624
2	8·32	606
3	8·32	602
5	8·33	606
6	8·33	617

Discharges of the Nile during June, 1935

Observed by the Irrigation Department.

Esna (D.S. Barrage)
(Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
4	73·36	1510
11	73·50	1550
18	73·56	1640
25	73·65	1680
Approx. Monthly Mean		1590

Aswân
(Measured by Sluices)
(Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	86·54	1440
2	86·66	1510
3	86·66	1500
4	86·64	1510
5	86·74	1570
6	86·74	1560
7	86·73	1560
8	86·73	1560
9	86·73	1570
10	86·73	1560
11	86·80	1620
12	86·83	1630
13	86·82	1620
14	86·82	1620
15	86·82	1620
16	86·81	1620
17	86·80	1620
18	86·80	1620
19	86·86	1680
20	86·87	1680
21	86·88	1680
22	86·88	1680
23	86·88	1680
24	86·85	1680
25	86·85	1680
26	86·86	1680
27	86·86	1680
28	86·86	1680
29	86·86	1680
30	86·84	1680
Approx. Monthly Mean		1620
Normal Mean 1912-1934		1030

Kajnarty (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	131·96	696
2	132·02	710
3	132·10	731
4	132·16	748
7	132·36	804
8	132·45	851
9	132·52	877
10	132·58	903
12	132·79	956
13	132·86	998
15	132·93	1020
16	132·97	1030
17	133·06	1080
19	133·26	1130
20	133·32	1180
21	133·37	1190
22	133·40	1210

Kajnarty (*contd.*).

Day of Month	Gauge Reading m.	Disch. m³. p.s.
23	133·43	1220
24	133·46	1220
26	133·49	1220
27	133·53	1250
28	133·66	1310
29	133·84	1400
30	134·01	1470
Approx. Monthly Mean		1030
Normal Mean 1912-1934		735

River Atbara (Kilo 3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	10·37	57
12	10·23	43
18	10·57	94
22	10·61	102
25	10·44	84
28	10·85	161
Approx. Monthly Mean		—
Normal Mean 1912-1934		36

Hassanâb (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	11·44	1100
11	11·56	1270
17	11·64	1270
21	11·93	1540
24	12·00	1700
27	12·01	1600
Approx. Monthly Mean		1350
Normal Mean 1912-1934		963

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	10·77	1160
7	10·96	1270
13	11·03	1310
17	11·36	1590
20	11·44	1680
23	11·50	1730
Approx. Monthly Mean		1490
Normal Mean 1912-1934		1100

Khartoum (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·16	519*
5	11·34	594*
11	11·31	669
15	11·53	844
18	11·72	1010
21	11·85	1110
Approx. Monthly Mean		895
Normal Mean 1912-1934		487

Sennar (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	5·75	639†
3	6·03	763†
6	5·93	776†
8	5·86	723†
11	6·12	930
13	6·65	1270
15	6·46	1120
17	6·55	1200
19	6·46	1100
22	6·34	996
24	6·24	955
26	6·44	1090
29	7·16	1580
Approx. Monthly Mean		1020
Normal Mean 1912-1934		589

Wad el Aies (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	6·86	649
10	7·07	750
12	7·81	1150
14	7·43	996
16	7·66	1110
18	7·59	1060
20	7·22	842
22	7·36	947
24	7·37	936
26	7·74	1200
28	8·24	1480
30	8·31	1490
Approx. Monthly Mean		971
Normal Mean 1912-1934		658

Roseires (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	13·58	691
4	13·74	759
6	13·50	660
8	13·74	738
12	13·88	819
14	14·25	1000
18	14·02	898
Approx Monthly Mean		—
Normal Mean 1912-1934		658

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	11·02	610
6	11·26	652
12	11·30	682
16	11·63	571
19	11·76	696
22	11·82	715
Approx. Monthly Mean		654
Normal Mean 1912-1934		626

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	11·00	796
10	11·13	813
15	11·24	876
20	11·34	902
25	11·44	931
27	11·45	933
28	11·47	945
29	11·48	958
30	11·50	937
Approx. Monthly Mean		863
Normal Mean 1912-1934		746

Hillet Doleîb (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	12·13	336
9	12·34	386
14	12·48	431
19	12·60	462
24	12·72	479
29	12·79	501
Approx. Monthly Mean		427
Normal Mean 1912-1934		333

River Sobat (At Head)
(Nasser Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	8·00	441
13	8·62	522
23	9·01	596
Approx. Monthly Mean		536
Normal Mean 1929-1934		394

River Gila (At Mouth)
(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	8·21	59
12	9·35	58
22	9·60	63
Approx. Monthly Mean		61
Normal Mean 1929-1934		66

River Pibor
(U.S. Gila Junction)
(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	8·21	34
12	9·35	97
22	9·60	95
Approx. Monthly Mean		82
Normal Mean 1929-1934		8

* Measured at Soba Site.
† " " Hillet Sherif.

Discharges of the Nile during June, 1935 (*continued*)

Observed by the Irrigation Department.

Akobo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	13·73	77
10	14·26	89
15	14·47	72
20	14·49	60
25	14·41	43
30	14·49	58
Approx. Monthly Mean		64
Normal Mean 1929-1934		7

Bahr el Zerâf (Kilo. 3)
(Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	11·90	126
18	12·06	134
28	12·15	138
Approx. Monthly Mean		132
Normal Mean 1912-1934		125

Abu Tong (White Nile)
(Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·13	299
18	12·29	329
28	12·36	320
Approx. Monthly Mean		316
Normal Mean 1923-1934		294

Lake No (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·79	318
17	13·87	340
27	13·91	340
Approx. Monthly Mean		332
Normal Mean 1923-1934		310

Bahr el Ghazâl
(At Mouth)
(Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·78	6
17	13·85	20
27	13·89	18
Approx. Monthly Mean		15
Normal Mean 1923-1934		10

Bahr el Jebel (Kilo. 3.)
(Lake No Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13.79	307
17	13.87	317
27	13.91	320
Approx. Monthly Mean		315
Normal Mean 1923-1934		303

Gigging (Bahr el Jebel)
(Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	28·86	181
Approx. Monthly Mean		194
Normal Mean 1931-1934		219

Gemeiza (Bahr el Jebel)
(Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	428·73	646
Approx. Monthly Mean		658
Normal Mean 1931-1934		663

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	13·12	791
Approx. Monthly Mean		890
Normal Mean 1931-1934		883

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·62	776
6	11·65	782
16	11·51	716
21	11·62	771
26	11·75	833
Approx. Monthly Mean		789
Normal Mean 1912-1934		842

Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR JULY 1935

The Weather

The weather during July was of the usual settled summer type with no large divergencies from average conditions; on the whole it was slightly cooler than usual in Middle and Upper Egypt, but there were several comparatively warm days.

On the 30th a shallow depression formed near Greece, the wind on the coast backed to south-west and freshened during the day. Slight rain fell at Salum in the evening. The amount registered was 2 millimetres. Rain (of measurable quantity) has never been recorded in any station in Egypt before during the month of July.

For the month as a whole the pressure was above normal in all districts except in North and Central Sudan, while the temperature was slightly below normal in Middle and Upper Egypt and the Red Sea, and above the average elsewhere. The Sudan rainfall was generally deficient particularly in Central and South Sudan.

TABLE SHOWING THE DEPARTURES FROM NORMAL FOR JULY, 1935

DISTRICTS	Barometric Pressure		Temperature						Rainfall	
			Maximum		Minimum		Max.+Min./2			
	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.
I. Mediterranean	1009·6	+0·3	29·5	—0·1	22·6	+0·3	26·0	+0·1	0	0
II. Middle Egypt	1009·6	+0·2	35·0	—0·3	20·2	—0·1	27·6	—0·2	0	0
III. Upper Egypt	1007·8	+0·1	38·1	—1·1	22·8	—0·6	30·4	—0·8	0	0
IV. North Sudan	1008.3	—0·3	39·7	0·0	25·6	+0·8	32·6	+0·4	24	—18
V. Red Sea *	1006·2	+0·8	40·6	—0·3	27·7	—0·4	34·2	—0·4	0	— 5
VI. Central Sudan	1009·8	—0·6	35·3	+0·4	22·8	+0·9	29·0	+0·6	83	—37
VII. South Sudan	1012·4	+0·4	32·0	+0·6	20·6	0·0	26·3	+0·3	113	—52

* Port Sudan only.

RAINFALL DATA FOR JULY, 1935

Station	1935	Difference from Normal	Station	1935	Difference from Normal
	mm.			mm.	
Juba	30	— 103	Addis Abeba	225	— 52
Wau	199	+ 10	Roseires	157	— 23
Malakal	109	— 64	Wad Medani	45	— 73
El Obeid	57	— 38	Atbara	1	— 19
El Fasher	73	— 38	Kassala	65	— 27
Khartoum	21	— 29	Port Sudan	0	— 6

M. HAMED MOHAMMAD
Acting Director, Meteorological Service.

State of the River

Lake Albert at Butiaba fell 5 centimetres during the month. Its level on August 1, 1935, was 5 centimetres below the normal and 25 centimetres below that of the corresponding day of last year.

On the Bahr el Jebel at Juba the levels fluctuated below both the normal and those of last year.

The River Sobat continued its rise, the levels being continuously about half a metre above normal and much above those of last year.

The White Nile at Malakal rose at about normal rate, the levels throughout the month being above both the normal and last year's.

On the Blue Nile at Roseires there were three prominent peaks the highest being on the 30th when the gauge read 20·66 metres (2·89 metres above normal) the highest recorded in July since records began. At Khartoum the Blue Nile rose very rapidly reaching a level of 15·30 metres at the end of the month the highest recorded in July during the last 35 years.

The River Atbara at Khashm el Girba fluctuated below normal throughout the month.

The Main Nile at both Kajnarti and Wadi Halfa rose rapidly and continuously throughout the month the levels being much above normal.

The differences of the mean levels in July 1935 from those of July 1934 and from the normal 1906–1930 were :—

STATION	MEAN DIFFERENCES OF LEVELS	
	July 1935 minus July 1934	July 1935 minus Normal
	Metres	Metres
Juba	— 0·17	— 0·14
Nasser	+ 0·66	+ 0·51*
Malakal	+ 0·15	+ 0·35
Roseires	+ 1·22	+ 2·13
Khartoum	+ 0·64	+ 1·16
Khashm el Girba	— 0·51	— 0·16
Kajnarti	+ 0·34	+ 1·61
Wadi Halfa	+ 0·20	+ 1·07

* Nasser normal is for 1922–1930 only.

Discharges of the Nile during July, 1935

Observed by the Irrigation Department.

Esna (D.S. Barrage)
(Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	73·87	1670
9	74·23	1930
16	74·70	2410
23	75·25	3020
30	76·94	4920
Approx. Monthly Mean		2730

Aswân
(Measured by Sluices)
(Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	87·00	1790
2	87·18	1920
3	87·32	2020
4	87·39	2080
5	87·39	2080
6	87·39	2080
7	87·40	2090
8	87·38	2090
9	87·38	2080
10	87·37	2080
11	87·38	2090
12	87·52	2180
13	87·67	2320
14	87·80	2410
15	87·88	2560
16	87·92	2610
17	87·96	2650
18	88·04	2730
19	88·10	2800
20	88·17	2870
21	88·24	2950
22	88·33	3040
23	88·55	3290
24	88·78	3550
25	88·99	3800
26	89·09	3930
27	89·25	4130
28	89·58	4570
29	90·00	5160
30	90·32	5640
31	90·22	5480
Approx. Monthly Mean		2940
Normal Mean 1912-1934		1740

Kajnarty (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	134·14	1520
2	134·22	1530
4	134·33	1580
5	134·35	1590
6	134·36	1600
7	134·40	1660
8	134·41	1660
9	134·43	1750
10	134·47	1760
11	134·57	1810
12	134·75	1880
13	134·97	2040
14	135·24	2190
15	135·44	2240
16	135·64	2410
Approx. Monthly Mean		—
Normal Mean 1912-1934		1890

River Atbara (Kilo 3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	11·33	343
12	11·48	385
17	12·16	747
22	12·46	680
27	12·96	1050
31	12·87	780
Approx. Monthly Mean		590
Normal Mean 1912-1934		661

Hassanâb (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	12·64	2280
11	13·09	2770
16	13·70	3380
21	14·80	4770
26	14·70	4720
30	15·18	5750
Approx. Monthly Mean		3630
Normal Mean 1912-1934		2270

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	11·86	1900
7	12·28	2430
11	12·72	2940
17	13·63	4390
22	14·06	4760
26	14·44	5310
Approx. Monthly Mean		3900
Normal Mean 1912-1934		2500

Khartoum (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12·20	1340
6	12·64	1820
10	13·04	2270
16	13·77	3550
21	14·48	4300
25	14·73	4930
Approx. Monthly Mean		3560
Normal Mean 1912-1934		1970

River Dinder (Blue Nile)
(Hillet Idris Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
30	11·36	218
31	11.88	315
Approx. Monthly Mean		—
Normal Mean 1912-1934		135

Sennar (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	7·17	1600
3	7·45	1810
7	7·94	2290
9	7·98	2250
11	8·09	2330
13	8·52	2720
15	10·48	4420

Sennar (*contd.*).

Day of Month	Gauge Reading m.	Disch. m³. p.s.
20	9·65	3940
22	10·14	4400
24	11·27	5780
27	10·74	5100
29	11·42	5950
31	12·34	7380
Approx. Monthly Mean		3790
Normal Mean 1912-1934		2170

Wad el Aies (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	8·32	1520
2	8·51	1760
3	8·69	1850
4	9·06	2120
5	9·19	2140
6	9·34	2270
7	9·37	2250
9	9·75	2690
10	9·80	2780
12	9·79	2710
14	11·26	4220
16	12·00	5170
18	11.40	4290
20	11·35	4270
22	11·56	4460
24	12·87	6330
26	12·15	5460
28	12·75	6180
30	13·57	7810
Approx. Monthly Mean		4140
Normal Mean 1912-1934		2380

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12·10	608
6	12·58	658
10	12·95	609
16	13·54	50
21	14·30	837
25	14·48	154
Approx. Monthly Mean		410
Normal Mean 1912-1934		593

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·50	948
2	11·51	945
3	11·51	962
4	11·52	952
5	11·53	972
6	11·54	982
7	11·56	967
8	11·58	973
9	11·59	995
10	11·60	978
11	11·61	993
15	11·67	1010
20	11·73	1030
25	11·78	1030
30	11·84	1080
Approx. Monthly Mean		1010
Normal Mean 1912-1934		914

Hillet Doleib (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
4	12·85	526
9	12·94	538
14	13·02	553
19	13·09	570
24	13·16	582
29	13·20	599
Approx. Monthly Mean		560
Normal Mean 1912-1934		491

River Sobat (At Head)
(Nasser Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	9·34	644
13	9·62	681
23	9·81	699
Approx. Monthly Mean		682
Normal Mean 1929-1934		564

River Gila (At Mouth)
(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·63	65
12	9·92	39
22	10·04	34
Approx Monthly Mean		43
Normal Mean 1929-1934		71

River Pibor
(U.S. Gila Junction)
(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·63	93
12	9·92	146
22	10·04	154
Approx. Monthly Mean		135
Normal Mean 1929-1934		28

Akobo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	14·69	85
10	14·98	117
15	15·18	105
20	15·15	96
25	15·12	87
31	15·05	61
Approx. Monthly Mean		91
Normal Mean 1929-1934		33

Bahr el Zerâf (Kilo. 3)
(Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·24	142
18	12·34	148
28	12·41	154
Approx. Monthly Mean		147
Normal Mean 1912-1934		133

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Discharges of the Nile during July, 1935 (*continued*)

Observed by the Irrigation Department.

Abu Tong (White Nile)
(Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·44	319
18	12·51	326
28	12·56	322
Approx. Monthly Mean		322
Normal Mean 1923-1934		294

Lake No (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·94	343
17	13·97	347
27	13·98	340
Approx. Monthly Mean		343
Normal Mean 1923-1934		315

Bahr el Ghazâl
(At Mouth)
(Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·92	24
17	13·96	36
27	13·97	28
Approx. Monthly Mean		29
Normal Mean 1923-1934		15

Bahr el Jebel (Kilo. 3)
(Lake No Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13.94	307
17	13.97	312
27	13.98	314
Approx. Monthly Mean		312
Normal Mean 1923-1934		303

Gigging (Bahr el Jebel)
(Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	29·08	212
Approx. Monthly Mean		186
Normal Mean 1931-1934		240

Gemeiza (Bahr el Jebel)
(Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	428·89	674
Approx. Monthly Mean		632
Normal Mean 1931-1934		708

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	13·63	996
Approx. Monthly Mean		867
Normal Mean 1931-1934		1000

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12·23	1050
6	12·00	936
12	11·69	817
16	11·67	794
21	11·62	754
26	11·71	803
Approx. Monthly Mean		837
Normal Mean 1912-1934		914

Meshra Surroûr
(Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	8·57	684
7	8·57	708
8	8·56	679
8	8·57	688
9	8·56	717
9	8·56	721

Occasional Discharges

Observed by the Irrigation Department

Date	River	Site	Gauge Reading	Gauge Site	Disch. m.³ p.s.
			M.		
		River Sobât and Tributaries			
5-6-1935	Sobât	D. S. Khor Nyanding Junction	10·59	Nyanding Mouth	403
15-6-1935	,,	,, ,, ,, ,, ...	11·02	,,	472
25-6-1935	,,	,, ,, ,, ,, ...	11·35	,,	522
5-6-1935	Khor Nyanding	Mouth	10·59	,,	— 6
15-6-1935	,, ,,	,, ...	11·02	,,	— 4
25-6-1935	,, ,,	,, ...	11·35	,,	— 4
4-6-1935	,, Twalor	,, ...	8·11	Nasser	— 8
14-6-1935	,, ,,	,, ...	8·66	,,	— 7
24-6-1935	,, ,,	,, ...	9·04	,,	— 7
3-6-1935	,, Wakau	,, ...	8·03	,,	— 11
13-6-1935	,, ,,	,, ...	8·63	,,	— 10
23-6-1935	,, ,,	,, ...	9·02	,,	— 14
2-6-1935	,, Macap	,, ...	7·86	Mokwai	— 8
12-6-1935	,, ,,	,, ...	8·42	,,	— 5
22-6-1935	,, ,,	,, ...	8·89	,,	— 3
1-6-1935	,, Geni	,, ...	12·76	Akobo	4
11-6-1935	,, ,,	,, ...	14·30	,,	7
21-6-1935	,, ,,	,, ...	14·51	,,	12
1-6-1935	Akobo	,, ...	12·76	,,	1
11-6-1935	,,	,, ...	14·30	,,	2
21-6-1935	,,	,, ...	14·51	,,	22
10-6-1935	Agwei	,, ...	14·26	,,	23
20-6-1935	,,	,, ...	14·49	,,	16
30-6-1935	,,	,, ...	14·49	,,	22
		White Nile and Tributaries			
5-6-1935	Tonga Cut	Mouth	12·08	Tonga	— 11
16-6-1935	,,	,, ...	12·24	,,	5
25-6-1935	,,	,, ...	12·35	,,	11
5-6-1935	White Nile	U.S. Tonga Cut	12·08	,,	303
16-6-1935	,,	,, ,, ,, ...	12·24	,,	326
25-6-1935	,,	,, ,, ,, ...	12·35	,,	312

R. P. Black

Acting Director, Hydrological Service.

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Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR AUGUST 1935

The Weather

The pressure distribution during the month was of the usual summer type. No excessively hot days were experienced and the weather throughout Egypt was of a settled character, but was rather humid. On the 17th a well defined cold front traversed the Central Sudan from the south, severe thunderstorms took place and 74 mms. of rain fell at Khartoum on that day. This is the greatest amount ever recorded in one single day during the month of August at Khartoum since observations began in 1900. During the storm hail of considerable size and weight fell; and the wind velocity at times reached 90 kilometres per hour. The rain was very heavy, 67 mms. out of the 74 falling in 80 minutes. At Deuim 72 mms. also fell on that day.

For the month as a whole, the mean atmospheric pressure was below normal everywhere, while the temperature was slightly below normal on the Mediterranean and Middle Egypt, and above normal elsewhere; the deviations however were small. The mean relative humidity was 6 % and 3 % above normal at Alexandria and Cairo respectively.

The Sudan rainfall was below the average in all districts except the Central Sudan.

TABLE SHOWING THE DEPARTURES FROM NORMAL FOR AUGUST, 1935

DISTRICTS	BAROMETRIC PRESSURE		TEMPERATURE						RAINFALL	
			MAXIMUM		MINIMUM		MAX.+MIN./2			
	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.
I. Mediterranean	1009·8	0·0	30·1	—0·2	22·7	—0·2	26·4	—0·2	0	0
II. Middle Egypt	1009·5	—0·4	34·4	—0·4	20·6	+0·1	27·5	—0·2	0	0
III. Upper Egypt	1007·6	—0·6	38·7	+0·1	23·6	+0·1	31·2	+0·1	0	0
IV. North Sudan	1008.3	—0·9	38·7	+0·1	24·9	+0·4	31·8	+0·2	61	— 2
V. Red Sea *	1005·8	—0·2	40·6	—0·1	29·3	+0·6	35·0	+0·2	0	— 4
VI. Central Sudan	1010·0	—0·6	33·1	—0·3	21·7	+0·2	27·4	0·0	156	+11
VII. South Sudan	1011·8	—0·3	32·5	+1·3	20·6	0·0	26·6	+0·6	84	—91

* Port Sudan only.

RAINFALL DATA FOR AUGUST, 1935

Station	1935	Difference from Normal	Station	1935	Difference from Normal
	mm.			mm.	
Juba	57	— 63	Addis Ababa	168	— 127
Wau	115	— 95	Roseires	219	+ 7
Malakal	80	— 114	Wad Medani	143	— 3
El Obeid	128	+ 12	Atbara	8	— 30
El Fasher	148	+ 11	Kassala	69	— 54
Khartoum	160	+ 85	Port Sudan	0	— 4

M. HAMED MOHAMMAD
Acting Director, Meteorological Service.

State of the River

Lake Albert at Butiaba fell 2 cms. during the month. Its level on September 1, 1935, was 15 cms. below the normal and 41 cms. below that of the corresponding day of last year.

The Bahr el Jebel at Juba fluctuated below normal and last year's levels.

The River Sobat at Nasser rose slower than normally the levels being above normal throughout, above last year's until the 27th and practically identical with them afterwards.

The White Nile at Malakal also rose slower than normally. The levels which were above normal throughout were above last year's until the 20th and below them thereafter.

The Blue Nile at Roseires fluctuated sharply well above normal the maximum reading of 21·55 metres on the 19th being 2·35 metres above normal. At Khartoum the Blue Nile reached its maximum on the 22nd the levels being much above normal throughout the month.

The River Atbara at Khashm el Girba fluctuated below normal for the first 11 days and a little above for the rest of the month.

The Main Nile at Wadi Halfa rose at about normal rate the levels being on the average almost a metre above normal and were still rising at the end of the month.

The differences of the mean levels in August 1935 from those of August 1934 and from the normal 1906-30 were :—

STATION	Mean Differences of Levels	
	August 1935 minus August 1934	August 1935 minus Normal
	Metres	Metres
Juba	— 0·57	— 0·39
Nasser	+ 0·19	+ 0·31*
Malakal	+ 0·03	+ 0·23
Roseires	— 0·26	+ 1·01
Khartoum	+ 0·31	+ 1·08
Khashm el Girba	— 0·94	+ 0·21
Kajnarti	+ 0·15	+ 1·49
Wadi Halfa	+ 0·11	+ 0·95

* Nasser normal is for 1922-1930 only.

Discharges of the Nile during August, 1935

Observed by the Irrigation Department.

Esna (D.S. Barrage) (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
6	77·85	5900
15	78·77	7530
22	79·50	8860
29	79·30	9570
Approx. Monthly Mean		7640

Aswân* (Measured by Sluices) (Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	90·18	5420
2	90·15	5380
3	90·23	5500
4	90·46	5860
5	90·71	6270
6	90·82	6460
7	90·85	6510
8	90·99	6770
9	91·24	7240
10	91·48	7740
11	91·64	8070
12	91·59	7960
13	91·60	7970
14	91·60	7920
15	91·60	7880
16	91·61	7860
17	91·61	7810
18	91·64	7830
19	91·79	8070
20	92·09	8560
21	92·32	8880
22	92·36	8920
23	92·38	9020
24	92·50	9300
25	92·61	9490
Approx. Monthly Mean		—
Normal Mean 1912-1934		6350

River Atbara (Kilo. 3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·54	938
12	13·70	1230
16	14·25	2290
22	14·36	2070
26	14·62	2320
30	14·87	3020
Approx. Monthly Mean		1780
Normal Mean 1912-1934		2090

Hassanâb (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
6	15·82	6640
11	15·88	7400
15	16·50	7010
21	16·57	8050
24	16·62	8440
29	16·92	8050
Approx. Monthly Mean		7410
Normal Mean 1912-1934		6010

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	15·18	6440
7	15·44	6900
12	15·35	6940
18	15·89	7800
22	16·12	8480
27	15·99	7990
Approx. Monthly Mean		7450
Normal Mean 1912-1934		6220

Khartoum (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	15·53	6940
6	15·72	7270
11	15·72	7320
17	16·05	7950
21	16·24	8240
26	16·14	7600
Approx. Monthly Mean		7560
Normal Mean 1912-1934		5650

River Rahad (New Mouth) (Abu Haraz Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	10·08	123
2	9·89	129
7	9·65	129
8	9·53	122
14	10·09	118
15	10·38	117
21	10·70	132
22	10·76	138
28	9·94	126
29	10·12	135
Approx. Monthly Mean		127
Normal Mean 1912-1934		138

River Dindêr (New Mouth) (Hillet Idris Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	11·86	296
6	11·50	261
12	11·47	320
13	11·91	340
19	13·21	541
20	13·21	517
26	12·08	389
27	12·16	408
Approx. Monthly Mean		384
Normal Mean 1912-1934		389

Sennar (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	11·84	6180
5	12·02	6360
7	11·56	6110
10	11·32	6020
12	11·62	6380
14	12·55	7340
16	12·70	7550
19	12·62	7500
22	12·60	7200
24	11·96	6310

Sennar (*contd.*).

Day of Month	Gauge Reading m.	Disch. m³. p.s.
26	11·54	5750
28	12·12	6670
31	11·74	5970
Approx. Monthly Mean		6630
Normal Mean 1912-1934		5560

Gezîra Main Canal (Kilo. 1·3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	16·35	88
1	16·35	92
18	15.23	40
18	15·23	40
Approx. Monthly Mean		51
Normal Mean 1925-1934		52

Wad el Aies (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	13·15	6770
3	13·38	7140
5	13·14	6620
7	12·88	6060
10	12·77	6000
14	13·87	8130
16	13·82	8070
18	13·66	7220
20	14·20	9020
22	13·70	7150
24	13·19	6310
26	13·12	6140
28	13.59	6970
30	13 30	6520
Approx. Monthly Mean		6990
Normal Mean 1912-1934		5610

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	15·20	—5
6	15·57	472
17	15·95	—261
26	16·15	328
Approx. Monthly Mean		160
Normal Mean 1912-1934		610

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	11·88	1060
10	11·93	1080
15	11·98	1130
20	12·00	1090
25	12·02	1120
30	12·06	1160
Approx. Monthly Mean		1100
Normal Mean 1912-1934		1050

Hillet Doleib (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
4	13·27	618
9	13·33	616
13	13·37	631
19	13·40	642
24	13·42	639
29	13·46	641
Approx. Monthly Mean		631
Normal Mean 1912-1934		608

River Sobat (At Head) (Nasser Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	9·95	721
13	10·06	756
23	10·17	736
Approx. Monthly Mean		745
Normal Mean 1929-1934		654

River Gila (At Mouth) (Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	10·00	46
12	9·93	64
22	9·89	75
Approx Monthly Mean		64
Normal Mean 1929-1934		41

River Pibor (U.S. Gila Junction) (Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	10·00	128
12	9·93	106
22	9·89	97
Approx. Monthly Mean		108
Normal Mean 1929-1934		98

Akobo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	14·93	51
10	14·84	50
15	14·76	34
20	14·70	30
25	14·74	35
31	14·86	53
Approx. Monthly Mean		43
Normal Mean 1929-1934		99

Bahr el Zerâf (Kilo. 3) (Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·50	156
18	12·57	160
28	12·59	161
Approx Monthly Mean		159
Normal Mean 1912-1934		149

Abu Tong (White Nile) (Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·64	317
18	12·69	316
28	12·71	319
Approx. Monthly Mean		317
Normal Mean 1923-1934		301

* Aswân sluice discharges from August 26th onwards are still under consideration.

Discharges of the Nile during August, 1935 (*continued*)

Observed by the Irrigation Department.

Lake No (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·98	336
17	14·04	336
27	14·05	339
Approx. Monthly Mean		337
Normal Mean 1923-1934		314

Bahr el Ghazâl (At Mouth) (Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·98	23
17	14·00	40
27	14·02	23
Approx. Monthly Mean		29
Normal Mean 1923-1934		24

Bahr el Jebel (Kilo. 3) (Lake No Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	13·98	315

Bagr el Jebel (*contd.*).

Day of Month	Gauge Reading m.	Disch. m³. p.s.
17	14·04	302
27	14·05	312
Approx. Monthly Mean		310
Normal Mean 1923-1934		293

Gigging (Bahr el Jebel) (Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	28·60	152
Approx. Monthly Mean		—
Normal Mean 1931-1934		288

Gemeiza (Bahr el Jebel) (Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	428·56	582
Approx. Monthly Mean		—
Normal Mean 1931-1934		771

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12·96	730
Approx. Monthly Mean		—
Normal Mean 1931-1934		1130

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·52	726
6	11·66	803
11	11·94	903
16	11·66	788
21	11·52	739
26	11·46	701
Approx. Monthly Mean		788
Normal Mean 1912-1934		1040

Occasional Discharges

Observed by the Irrigation Department

Date	River	Site	Gauge Reading (M.)	Gauge Site	Disch. m.³ p.s.
		River Sobât and Tributaries			
5-7-1935	Sobât	D. S. Khor Nyanding Junction	11·64	Nyanding Mouth	559
5-7-1935	,,	,, ,, ,, ,, ...	11·88	,,	610
5-7-1935	,,	,, ,, ,, ,, ...	12·07	,,	618
5-7-1935	Khor Nyanding	Mouth	11·64	,,	— 3
5-7-1935	,, ,,	,, ...	11·88	,,	— 6
5-7-1935	,, ,,	,, ...	12·07	,,	— 3
4-7-1935	,, Twalor	,, ...	9·37	Nasser	— 5
4-7-1935	,, ,,	,, ...	9·65	,,	— 4
4-7-1935	,, ,,	,, ...	9·83	,,	— 3
3-7-1935	,, Wakau	,, ...	9·35	,,	— 25
3-7-1935	,, ,,	,, ...	9·63	,,	— 35
3-7-1935	,, ,,	,, ...	9·82	,,	— 39
2-7-1935	,, Macap	,, ...	9·22	Mokwai	— 3
1-7-1935	,, Geni	,, ...	14·52	Akobo	5
1-7-1935	,, ,,	,, ...	15·01	,,	— 6
1-7-1935	,, ,,	,, ...	15·14	,,	0
1-7-1935	Akobo	,, ...	14·52	,,	22
1-7-1935	,,	,, ...	15·01	,,	19
1-7-1935	,,	,, ...	15·14	,,	27
0-7-1935	Agwei	,, ...	14·98	,,	12
0-7-1935	,,	,, ...	15·15	,,	14
1-7-1935	,,	,, ...	15·05	,,	12
		White Nile and Tributaries			
6-7-1935	Tonga Cut	Mouth	12·41	Tonga	— 2
5-7-1935	,,	,, ...	12·50	,,	2
5-7-1935	,,	,, ...	12·56	,,	2
5-7-1935	White Nile	U.S. Tonga Cut	12·41	,,	317
5-7-1935	,,	,, ,, ,, ...	12·50	,,	318
5-7-1935	,,	,, ,, ,, ...	12·56	,,	311
5-7-1935	Maya Sinyora	Mouth	13·96	Lake No	2
6-7-1935	,, ,,	,, ...	13·97	,,	3
6-7-1935	White Nile	U.S. Maya Sinyora	13·96	,,	328
6-7-1935	,, ,,	,, ...	13·97	,,	321

R. P. Black

Acting Director, Hydrological Service.

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Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR SEPTEMBER 1935

The Weather

There were no large departures from normal conditions. With the exception of the 4th week, the pressure distribution was characteristic of the settled type of summer conditions, *i.e.* high pressure area over the Central Mediterranean and low pressure east of Egypt.

On the 23rd a depression formed near Greece, it slowly moved eastwards. During its travel winds on the coast went round to the south and the weather became generally warm. The maximum temperature in Cairo reached 36°C being 4°C above normal on the 25th. Dust-storms were also reported from Salum on that and the following day.

On the 28th the depression reached Syria and a current of cold air from Southern Europe traversed Egypt causing a big drop in temperature throughout Egypt and light rain on the coast. The weather remained cool until the end of the month.

For the month as a whole the mean atmospheric pressure was below normal in all districts, while the temperature was normal in Upper Egypt and North Sudan and above normal elsewhere.

The air at Alexandria as in the previous month was much damper than usual.

The Sudan rainfall was generally in excess.

TABLE SHOWING THE DEPARTURES FROM NORMAL FOR SEPTEMBER 1935

DISTRICTS	Barometric Pressure		Temperature						Rainfall	
			Maximum		Minimum		Max.+Min. 2			
	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.
I. Mediterranean	1012·4	—0·8	29·9	+0·4	22·0	+0·1	26·0	+0·2	0	0
II. Middle Egypt	1012·3	—0·9	32·2	0·0	19.2	+0·4	25·7	+0·2	0	0
III. Upper Egypt	1010·2	—0·7	35·8	0·0	21·6	+0·1	28·7	0·0	0	—
IV. North Sudan	1008.8	—0·6	39·3	—0·2	24·6	+0·1	32·0	0·0	30	+ 8
V. Red Sea *	1008·3	0·0	38·5	+0·7	27·8	+1·5	33·2	+1·1	6	+ 6
VI. Central Sudan	1009·4	—1·0	35·4	0·0	21·7	+0·5	28·6	+0·2	87	+12
VII. South Sudan	1011·0	—0·4	33·7	+1·0	20·9	+0·2	27·3	+0·6	229	+84

* Port Sudan only.

RAINFALL DATA FOR SEPTEMBER 1935

Station	1935	Difference from Normal	Station	1935	Difference from Normal
	mm.	mm.		mm.	mm.
Juba	406	+ 275	Addis Ababa	235	+ 43
Wau	232	+ 66	Roseires	255	+ 101
Malakal	50	— 89	Wad Medani	18	— 45
El Obeid	85	+ 8	Atbara	0	— 6
El Fasher	39	+ 8	Kassala	111	+ 52
Khartoum	7	— 11	Port Sudan	6	+ 6

M. HAMED MOHAMMAD
Acting Director, Meteorological Service.

State of the River

Lake Albert at Butiaba rose 3 cms. during the month. Its level on October 1, 1935, was 19 cms. below the normal and 33 cms. below that of the corresponding day of last year.

The Bahr el Jebel at Juba rose with fluctuations until the 12th and then fell for the rest of the month. The levels were on the average about 25 cms. below normal and about 10 cms. below those of last year.

The River Sobat at Nasser rose at about normal rate the levels being practically identical with last year's throughout the month.

The White Nile at Malakal rose rather slower than normally the levels being above normal but below last year's throughout the month.

After the 4th the Blue Nile at Roseires fluctuated well above the normal and last year's levels until the 25th and then fell sharply. At Khartoum the Blue Nile fluctuated slightly remaining well above both the normal and last year's levels. Only during the last two days of the month was there any decided fall in level.

The River Atbara at Khashm el Girba fluctuated above normal until the 18th and fell thereafter.

At Wadi Halfa the levels were much above normal during the whole month. After the 28th the level which up to that date had remained within 40 cms. of the peak of the flood began definitely to fall.

The feature of this year's flood, which though high was not as high as either that of last year or that of 1929, has been the continuance of high levels. At Wadi Halfa for example the levels have remained well above the normal maximum for a month and a half.

The differences of the mean levels in September 1935 from those of September 1934 and from the normal 1906-1930 were:—

STATION	Mean Differences of Levels	
	September 1935 minus September 1934	September 1935 minus Normal
	Metres	Metres
Juba	— 0·11	— 0·27
Nasser	— 0·01	+ 0·26*
Malakal	— 0·13	+ 0·11
Roseires	+ 0·81	+ 1·10
Khartoum	+ 0·25	+ 0·53
Khashm el Girba	+ 0·44	+ 0·37
Kajnarti	+ 0·27	+ 1.38
Wadi Halfa	+ 0·23	+ 0·93

* Nasser normal is for 1922-1929 only.

Discharges of the Nile during September, 1935

Observed by the Irrigation Department.

Esna (D.S. Barrage) (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	79·75	10000
12	79·88	9630
19	79·88	8980
26	79·83	9100
Approx. Monthly Mean		9390

Aswân (Gaâfra) (Measured by current meter) (Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	92·77	9600
9	92·70	9550
10	92·70	9520
11	92·73	9630
13	92·74	9380
15	92·70	9190
17	92·74	8980
19	92·52	8850
21	92·61	8900
23	92·68	9070
25	92·62	8680
27	92·68	8850
29	92·55	8950
Approx. Monthly Mean		—
Normal Mean 1912-1934		7880

Aswân* (Measured by Sluices)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
18	92·73	9430
19	92·52	8900
20	92·66	9260
21	92·61	8990
22	92·66	9090
23	92·68	9130
24	92·68	8960
25	92·62	8760
26	92·64	8750
27	92·68	8850
28	92·64	8720
29	92·55	8480
30	92·56	8330
Approx. Monthly Mean		—
Normal Mean 1912-1934		7880

River Atbara (Kilo. 3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
6	14·62	2350
12	14·50	2260
17	14·39	1750
22	14·29	1570
26	13·96	1020
30	13·76	821
Approx. Monthly Mean		1860
Normal Mean 1912-1934		1370

Hassanâb (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	16·70	7990
11	16·50	8060
16	16·64	7820
21	16·56	7730
25	16·34	7810
29	16·20	8100
Approx. Monthly Mean		7920
Normal Mean 1912-1934		6580

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	15·88	7680
8	15·74	7200
14	15·84	7650
19	15·94	8040
23	15·97	7990
27	15·87	7950
Approx. Monthly Mean		7700
Normal Mean 1912-1934		6720

Khartoum (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	16·00	7220
7	15·87	6720
13	16·02	7220
18	16·08	7040
22	16·05	7030
26	16·00	6790
Approx. Monthly Mean		6910
Normal Mean 1912-1934		5540

River Rahad (Near Mouth) (Abu Haraz Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
4	9·87	140
5	9·78	141
11	10·08	142
12	10·20	136
18	10·28	147
19	10·29	143
25	9·96	154
26	9·95	151
Approx. Monthly Mean		145
Normal Mean 1912-1934		160

River Dinder (Near Mouth) (Hillet Idris Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	12·50	442
3	12·52	461
9	12·75	544
10	12·88	549
16	13·12	564
17	13·04	536
23	12·48	407
24	12·15	366
30	10·90	310
Approx. Monthly Mean		465
Normal Mean 1912-1934		411

Sennar (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	11·96	5960
4	11·51	5700
7	11·70	5890
9	11·38	5550
11	11·94	6360
14	12·09	6640
16	11·94	6360
18	12·10	6490
21	11·91	6340
23	11·94	6420
25	11·74	6080
28	10·86	4920
30	10·77	5050
Approx. Monthly Mean		6310
Normal Mean 1912-1934		5900

Gezîra Main Canal (Kilo. 1·3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	14·69	16
3	14·68	20
17	16.50	96
17	16·50	97
Approx. Monthly Mean		71
Normal Mean 1925-1934		45

Wad el Aies (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	13·56	7130
3	13·16	6200
5	12·84	5870
7	13·10	6070
9	13·27	6560
11	13·46	6910
13	13·50	7240
15	13·40	6860
17	13·51	7150
19	13·37	6710
21	13·45	6920
23	13·28	6390
25	13.28	6730
27	12 66	5460
29	12·35	5200
Approx. Monthly Mean		6460
Normal Mean 1912-1934		4870

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	15·88	787
13	15·97	577
18	16·02	890
22	16·03	977
26	16·00	1230
Approx. Monthly Mean		861
Normal Mean 1912-1934		1150

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	12·09	1110
10	12·14	1130
15	12·18	1170
20	12·19	1150
25	12·22	1150
30	12·24	1150
Approx. Monthly Mean		1140
Normal Mean 1912-1934		1160

Hillet Doleib (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	13·50	672
9	13·53	675
14	13·57	671
19	13·61	690
24	13·65	709
29	13·67	712
Approx. Monthly Mean		686
Normal Mean 1912-1934		696

River Sobat (At Head) (Nasser Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	10·76	796
13	10·49	787
23	10·57	827
Approx. Monthly Mean		801
Normal Mean 1929-1934		704

River Gila (At Mouth) (Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·98	67
12	10·08	44
22	10·23	21
Approx Monthly Mean		37
Normal Mean 1929-1934		24

River Pibor (U.S. Gila Junction) (Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·98	108
12	10·08	146
22	10·23	189
Approx. Monthly Mean		159
Normal Mean 1929-1934		139

Akobo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	14·91	58
10	15·10	91
15	15·35	124
20	15·59	135
25	15·70	138
30	15·69	125
Approx. Monthly Mean		107
Normal Mean 1929-1934		109

Bahr el Zerâf (Kilo. 3) (Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·66	166
18	12·70	164
28	12·73	166
Approx Monthly Mean		165
Normal Mean 1912-1934		164

* Aswân sluice discharges before September 18 are still under consideration.

Discharges of the Nile during September, 1935 (*continued*)

Observed by the Irrigation Department.

Abu Tong (White Nile)
(Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·76	307
18	12·81	305
28	12·84	294
Approx. Monthly Mean		304
Normal Mean 1923-1934		309

Lake No (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·07	343
17	14·07	328
27	14·08	320
Approx. Monthly Mean		331
Normal Mean 1923-1934		314

Bahr el Ghazâl
(At Mouth)
(Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·04	25
17	14·05	25
27	14·06	24
Approx. Monthly Mean		26
Normal Mean 1923-1934		38

Bahr el Jebel (Kilo. 3)
(Lake No Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·07	304
17	14·07	290
27	14·08	289
Approx. Monthly Mean		296
Normal Mean 1923-1934		280

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·90	897
6	11·84	857
11	11·80	852
16	12·20	1030
21	11·80	852
26	11·65	793
Approx. Monthly Mean		875
Normal Mean 1912-1934		1060

Occasional Discharges

Observed by the Irrigation Department

Date	River	Site	Gauge Reading	Gauge Site	Disch. m.³ p.s.
			M.		
		River Sobât and Tributaries			
5-8-1935	Sobât	D. S. Khor Nyanding Junction	12·24	Nyanding Mouth	661
15-8-1935	"	" " " "	12·34	"	675
25-8-1935	"	" " " "	12·43	"	708
5-8-1935	Khor Nyanding	Mouth	12·24	"	— 2
15-8-1935	" "	"	12·34	"	— 2
25-8-1935	" "	"	12·43	"	— 2
1-8-1935	" Twalor	"	9·98	Nasser	1
14-8-1935	" "	"	10·06	"	2
24-8-1935	" "	"	10·18	"	5
3-8-1935	" Wakau	"	9·97	"	— 34
13-8-1935	" "	"	10·06	"	— 25
23-8-1935	" "	"	10·17	"	— 14
2-8-1935	" Macap	"	9·79	Mokwai	— 6
12-8-1935	" "	"	9·84	"	— 7
22-8-1935	" "	"	9·86	"	— 6
1-8-1935	" Geni	"	15·02	Akobo	— 9
11-8-1935	" "	"	14·82	"	— 6
21-8-1935	" "	"	14·71	"	— 5
1-8-1935	Akobo	"	15·02	"	35
11-8-1935	"	"	14·82	"	36
21-8-1935	"	"	14·71	"	40
10-8-1935	Agwei	"	14·84	"	11
20-8-1935	"	"	14·70	"	11
31-8-1935	"	"	14·83	"	29
		White Nile and Tributaries			
1-8-1935	Tonga Cut	Mouth	12·61	Tonga	3
11-8-1935	"	"	12·68	"	6
21-8-1935	"	"	12·71	"	7
1-8-1935	White Nile	U.S. Tonga Cut	12·61	"	299
11-8-1935	"	U.S. Barboi Head, 100 mts. U.S.R.P. 10...	12·68	"	321
21-8-1935	"	" " " 100 " " 10...	12·71	"	317
11-8-1935	"	U.S. Khor Yergol	14·03	Khor Yergol	318
10-8-1935	Outlet	Mouth, 200 mts. U.S.R.P. 6...	14·04	"	2
20-8-1935	"	" 200 " " 6...	14·05	"	2
6-8-1935	Maya Sinyora	Mouth	13·98	Lake No	3
16-8-1935	" "	"	14·03	"	4
26-8-1935	" "	"	14·05	"	4
6-8-1935	White Nile	U.S. Maya Sinyora	13·98	"	316
16-8-1935	" "	" " "	14·03	"	320
26-8-1935	" "	" " "	14·05	"	333

R. P. Black

Acting Director, Hydrological Service.

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Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR OCTOBER 1935

The Weather

The weather was unusually warm and humid almost throughout the month.

A remarkable feature was the frequency of thunderstorms and rain in Upper Egypt, the eastern desert and Sinai, especially during the first half of the month. Lightning was observed at Aswan for example on eight days in the first fortnight. The storms, which were associated with small depressions situated near the northern part of the Red Sea, caused many severe floods resulting in considerable damage to roads, railways and crops. The Governor of Sinai reports that such heavy storms have not been known in Sinai at this time of the year for many years. Very little rain fell in Lower Egypt, where for the most part warm northeasterly winds prevailed, but lightning was occasionally observed.

A deep and extensive depression appeared over the central Mediterranean on the 21st. An extension of the low pressure towards Egypt subsequently gave rise to warm dry southeasterly winds, and sandstorms were general, being especially severe over the western desert. The effects of this depression ended by the 26th, when Egypt again became an area of high pressure, but with winds blowing from the northeast the weather remained warm and became much damper. The highest temperature reached in Cairo was 36° C. (97° F.) on 25th and 28th. This is 8° C. above the normal for the time of the year, and is about the average maximum temperature on a July afternoon.

On the last three days of the month, when a deep depression was passing along the Mediterranean north of Egypt, conditions throughout Lower Egypt and the eastern Mediterranean were very disturbed. Winds of gale force, veering from southwest to northwest, prevailed and the weather rapidly became cooler, the temperature in Cairo on the 31st, not rising above 25° C. (77° F.). Severe dust storms were general, and light scattered showers followed. At Alexandria the wind velocity reached 90 kilometres an hour and throughout the eastern Mediterranean shipping was seriously affected by the gale and high seas.

For the month as a whole, the barometric pressure was below normal throughout Egypt and the Sudan, while the temperature was everywhere above normal. The air was unusually damp, the humidity being above normal on 24 days at Alexandria (5 per cent above for the month) and on 22 days in Cairo (3 per cent above for the month). Rainfall was below normal in Lower Egypt and about normal in the southern Sudan.

TABLE SHOWING THE DEPARTURES FROM NORMAL FOR OCTOBER 1935

DISTRICTS	Barometric Pressure		Temperature						Rainfall	
			Maximum		Minimum		Max.+Min.÷2			
	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.
I. Mediterranean	1015·1	—1·0	28·5	+0·6	20·3	+0·6	24·4	+0·6	2	— 5
II. Middle Egypt	1014·8	—1·6	30·6	+0·7	17.8	+1·2	24·2	+1·0	0	— 2
III. Upper Egypt	1012·8	—1·2	33·5	+0·5	20·1	+1·4	26·8	+1·0	0	—
IV. North Sudan	1009.6	—0·7	39·2	+0·3	23·5	+0·7	31·4	+0·5	5	+ 2
V. Red Sea *	1012·0	+0·2	34·3	+0·5	25·7	+1·1	30·0	+0·8	0	—14
VI. Central Sudan	1009·0	—0·8	37·7	+0·2	21·2	+0·5	29·4	+0·4	18	+ 3
VII. South Sudan	1010·3	—0·2	34·6	+0·6	20·6	—0·2	27·6	+0·2	91	— 8

* Port Sudan only.

L. J. SUTTON
Director, Meteorological Service.

State of the River

Lake Albert at Butiaba rose 2 cms. during the month. Its level on November 1, 1935 was 24 cms. below the normal and 28 cms. below that of the corresponding day of last year.

The Bahr el Jebel at Juba fluctuated below the normal but above last years' levels during the month.

The River Sobat at Nasser continued to rise slowly the levels being above normal but a few centimetres below last year's.

The White Nile at Malakal rose normally the levels being slightly above normal and rather lower than those of last year.

The Blue Nile at Roseires fluctuated for the first 5 days and fell rapidly thereafter. The levels were above both the normal and last year's.

At Khartoum the Blue Nile fell rapidly but the levels remained above both the normal and those of last year.

The River Atbara at Khashm el Girba fluctuated for the first 4 days and then fell rapidly. The levels were above normal for the first half of the month and practically normal for the second half.

The Main Nile at Wadi Halfa fell rapidly the levels which were 106 cms. above normal at the beginning of the month being only 44 cms. above it at the end.

The differences of the mean levels in October 1935 from those of October 1934 and from the normal 1906-1930 were:—

STATION	Mean Differences of Levels	
	October 1935 minus October 1934	October 1935 minus Normal
	Metres	Metres
Juba	+ 0·18	— 0·19
Nasser	— 0·07	+ 0·20*
Malakal	— 0·19	+ 0·06
Roseires	+ 0·24	+ 0·78
Khartoum	+ 0·21	+ 0·42
Khashm el Girba	+ 0·08	+ 0·15
Kajnarti	+ 0·51	+ 1.18
Wadi Halfa	+ 0·32	+ 0·84

* Nasser normal is for 1922–1930 only.

Discharges of the Nile during October, 1935

Observed by the Irrigation Department

Esna (D.S. Barrage)

(Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	79·79	8630
10	79·14	7740
17	78·72	6950
24	77·92	5650
31	76·58	3990
Approx. Monthly Mean		6720

Aswân (Gaâfra)

(Measured by current-meter)
(Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	92·61	8590
3	92·57	8900
5	92·46	8010
6	92·34	8220
7	92·13	7760
8	92·08	7950
9	91·91	7450
11	91·78	7060
13	91·68	7130
15	91·60	6890
Approx Monthly Mean		—
Normal Mean 1912-1934		5470

Aswân*

(Measured by Sluices)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
Aug. 26	92·49	9260
27	92·37	8980
28	92·35	8960
29	92·25	8740
30	92·46	9180
31	92·53	9330
Approx Monthly Mean		7840
Normal Mean 1912-1934		6350
Sept. 1	92·53	9330
2	92·61	9510
3	92·65	9610
4	92·65	9610
5	92·74	9820
6	92·72	9790
7	92·77	9630
8	92·76	9610
9	92·70	9310
10	92·70	9320
11	92·73	9430
12	92·77	9630
13	92·74	9480
14	92·65	9090
15	92·70	9320
16	92·72	9410
17	92·74	9460
Approx. Monthly Mean		9230
Normal Mean 1912-1934		7880

Aswân (*continued*)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
Oct. 1	92·61	8510
2	92·60	8570
3	92·57	8630
4	92·58	8680
5	92·46	8490
6	92·34	8270
7	92·13	7780
8	92·08	7790
9	91·91	7400
10	91·84	7300
11	91·78	7190
12	91·76	7200
13	91·68	7100
14	91·65	7020
15	91·60	6910
16	91·52	6760
17	91·43	6550
18	91·38	6470
19	91·22	6210
20	91·09	6030
21	90·98	5850
22	90·87	5710
23	90·72	5470
24	90·53	5220
25	90·39	5000
26	90·21	4780
27	90·04	4550
28	89·87	4270
29	89·71	4150
30	89·53	3970
31	89·36	3760
Approx Monthly Mean		6500
Normal Mean 1912-1934		5470

Halfa (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
24	6.17	5230
26	5.92	5280
27	5.82	5100
29	5.59	4460
30	5.48	4350
Approx Monthly Mean		—
Normal Mean 1912-1934		5640

River Atbara (Kilo. 3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
6	13·43	888
11	13·03	559
17	12·34	310
23	11·84	206
26	11·60	165
31	11·30	133
Approx. Monthly Mean		447
Normal Mean 1912-1934		284

Hassanâb (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	15·72	7110
10	15·51	6780
16	14·76	5580
22	14·19	4380
25	13·84	3940
30	13·46	3460
Approx. Monthly Mean		5530
Normal Mean 1912-1934		4450

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	15·39	6950
8	15·16	6460
14	14·47	5580
19	13·94	4570
23	13·45	3930
27	13·18	3600
Approx. Monthly Mean		5170
Normal Mean 1912-1934		4330

Khartoum (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	15·62	5510
7	15·36	5230
13	14·81	3670
18	14·28	2840
22	13·80	2340
26	13·52	2040
Approx. Monthly Mean		3470
Normal Mean 1912-1934		2930

River Rahad (Near Mouth)

(Abu Harâz Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·10	159
3	9·04	159
Approx. Monthly Mean		—
Normal Mean 1912-1934		86

River Dinder (Near Mouth)

(Hillet Idrîs Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	10·66	252
Approx. Monthly Mean		...
Normal Mean 1912-1934		138

Sennâr (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	10·64	4860
5	10·61	4920
7	10·59	4820
9	9·98	4120
12	9·23	3220
14	8·92	2870
16	8·72	2620
19	8.44	2300
21	8.23	2090
23	8.09	1980
26	7.92	1830
28	7.62	1560
30	7.40	1370
Approx. Monthly Mean		3010
Normal Mean 1912-1934		2520

Gezîra Main Canal

(Kilo. 1·3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	16·36	88
3	16·36	90
17	16.40	87
17	16·40	91
Approx. Monthly Mean		88
Normal Mean 1925-1934		76

Wad el Aies (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	12·49	5190
3	12·26	5060
5	12·52	5410
7	12·12	4810
9	11·59	3990
12	10·85	3050
14	10·56	2860
16	10·30	2670
18	10·02	2400
20	9·77	2160
22	9·57	2070
24	9·46	2010
26	9.32	1890
28	9·16	1770
30	9·02	1630
Approx. Monthly Mean		3090
Normal Mean 1912-1934		2430

Roseires (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
17	16.32	2290
19	16.16	2160
21	16.04	1940
23	15.98	1970
25	15.88	1810
27	15.71	1690
29	15.55	1540
31	15.42	1480
Approx Monthly Mean		—
Normal Mean 1912-1934		2430

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	15·71	1330
7	15·42	1430
13	14·88	1800
18	14·88	1700
22	13·88	1580
26	13.66	1540
Approx. Monthly Mean		1550
Normal Mean 1912-1934		1400

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	12·27	1130
10	12·28	1170
15	12·30	1190
20	12·32	1200
25	12·34	1230
30	12·35	1220
Approx. Monthly Mean		1190
Normal Mean 1912-1934		1240

* Aswân sluice discharges from Aug. 26 to Sept. 17 were still under consideration when the monthly reports for these two months were published.

Discharges of the Nile during October 1935 (*continued*)

Observed by the Irrigation Department

Hillet Doleîb (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	13·70	721
9	13·72	744
14	13·73	748
19	13·76	747
23	13·78	769
29	13·79	770
Approx. Monthly Mean		749
Normal Mean 1912-1934		761

River Sobât (At Head)

(Nâsser Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	10·65	775
13	10·68	751
23	10·70	774
Approx. Monthly Mean		765
Normal Mean 1929-1934		748

River Gila (At Mouth)

(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	10·26	9
12	10·20	24
22	10·07	49
Approx Monthly Mean		35
Normal Mean 1929-1934		18

River Pibor

(U.S. Gila Junction)
(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	10·26	207
12	10·20	177
22	10·07	121
Approx. Monthly Mean		153
Normal Mean 1929-1934		152

Akôbo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	15.63	117
10	15·50	95
15	15·25	63
20	15·08	50
25	14·94	38
31	14·80	26
Approx. Monthly Mean		70
Normal Mean 1929-1934		97

Bahr el Zerâf (Kilo. 3)

(Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·77	169
18	12·80	171
28	12·82	172
Approx Monthly Mean		170
Normal Mean 1912-1934		166

Abu Tong (White Nile)

(Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·86	303
18	12·90	314
28	12·92	302
Approx. Monthly Mean		305
Normal Mean 1923-1934		320

Lake Nô (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·08	320
17	14·10	331
27	14·09	326
Approx. Monthly Mean		325
Normal Mean 1923-1934		314

Bahr el Ghazâl

(At Mouth)
(Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·06	24
17	14·08	22
27	14·06	15
Approx. Monthly Mean		20
Normal Mean 1923-1934		44

Bahr el Jebel (Kilo. 3)

(Lake Nô Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·08	300
17	14·10	301
27	14·09	305
Approx. Monthly Mean		301
Normal Mean 1923-1934		273

Gigging (Bahr el Jebel)

(Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	28·85	184
23	28·94	184
Approx. Monthly Mean		182
Normal Mean 1931-1934		268

Gemeiza (Bahr el Jebel)

(Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	428·76	640
22	428·81	632
Approx. Monthly Mean		634
Normal Mean 1931-1934		759

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
6	13·28	855
22	13·25	819
Approx. Monthly Mean		832
Normal Mean 1931-1934		1040

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
6	11·76	845
11	11·63	768
16	12·14	987
21	11·74	828
26	11·76	854
Approx. Monthly Mean		850
Normal Mean 1912-1934		1020

Meshra Surroûr

(Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	8·59	688
2	8·61	723
3	8·61	743
4	8·68	740
5	8·68	764
6	8·67	714
13	8·68	736
14	8·71	764

Occasional Discharges

Observed by the Irrigation Department

Date	River	Site	Gauge Reading	Gauge Site	Disch. m.³ p.s.
			M.		
		River Sobât and Tributaries			
3-9-1935	Khor Fullus	Mouth	13·57	H. Doleib	— 4
3-9-1935	,,	,, ...	13·65	,,	2
5-9-1935	Sobât	D. S. Khor Nyanding Junction	12·59	Nyanding Mouth	735
5-9-1935	,,	,, ,, ,, ,, ...	12·76	,,	738
5-9-1935	,,	,, ,, ,, ,, ...	12·86	,,	792
5-9-1935	Khor Nyanding	Mouth	12·59	,,	— 3
5-9-1935	,, ,,	,, ...	12·76	,,	— 2
4-9-1935	,, Twalor	,, ...	10·38	Nasser	11
4-9-1935	,, ,,	,, ...	10·50	,,	18
1-9-1935	,, ,,	,, ...	10·58	,,	20
3-9-1935	,, Wakau	,, ...	10·36	,,	— 4
3-9-1935	,, ,,	,, ...	10·49	,,	18
3-9-1935	,, ,,	,, ...	10·57	,,	29
2-9-1935	,, Macap	,, ...	10·00	Mokwai	— 9
1-9-1935	,, Geni	,, ...	14·87	Akobo	— 6
1-9-1935	,, ,,	,, ...	15·14	,,	— 7
1-9-1935	,, ,,	,, ...	15·62	,,	— 7
1-9-1935	Akobo	,, ...	14·87	,,	38
1-9-1935	,,	,, ...	15·14	,,	28
1-9-1935	,,	,, ...	15·62	,,	21
0-9-1935	Agwei	,, ...	15·10	,,	27
0-9-1935	,,	,, ...	15·59	,,	23
0-9-1935	,,	,, ...	15·69	,,	25
		White Nile and Tributaries			
5-9-1935	Tonga Cut	Mouth	12·75	Tonga	4
5-9-1935	,,	,, ...	12·79	,,	— 17
5-9-1935	,,	,, ...	12·84	,,	6
9-1935	White Nile	U.S. Barboi Head, 100 mts. U.S.R.P. 10...	12·75	,,	317
5-9-1935	,,	,, ,, ,, ,, ,, ,, ,, ...	12·79	,,	310
5-9-1935	,,	,, ,, ,, ,, ,, ,, ,, ...	12·84	,,	287
6-9-1935	Khor Yergol	Mouth	14·09	Khor Yergol	0
6-9-1935	,, ,,	,, ...	14·13	,,	0
6-9-1935	,, ,,	,, ...	14·15	,,	0
6-9-1935	White Nile	U.S. Khor Yergol	14·09	,,	316
6-9-1935	,, ,,	,, ,, ,, ...	14·13	,,	303
6-9-1935	,, ,,	,, ,, ,, ...	14·15	,,	313
6-9-1935	Outlet	Mouth, 200 mts. U.S.R.P. 6...	14·09	,,	2
6-9-1935	,,	,, ,, ,, ,, ,, ...	14·13	,,	1
-9-1935	,,	,, ,, ,, ,, 10...	14·15	,,	7
6-9-1935	Maya Sinyora	Mouth	14·06	Lake No	5
6-9-1935	,, ,,	,, ...	14·07	,,	3
6-9-1935	,, ,,	,, ...	14·08	,,	4
6-9-1935	White Nile	U.S. Maya Sinyora	14·06	,,	320
6-9-1935	,, ,,	,, ,, ,, ...	14·07	,,	302
6-9-1935	,, ,,	,, ,, ,, ...	14·08	,,	311

P. Phillips

Director, Hydrological Service.

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Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR NOVEMBER 1935

The Weather

Unusually cool; in Upper Egypt the coolest November since 1913. At the beginning of the month a shallow depression over Syria caused cool northwesterly winds and light rain throughout Lower Egypt. The depression deepened on the 3rd and heavy rain fell near the coast; at Alexandria 23 millimetres and at Borollos 17 millimetres were recorded. The weather remained cool, and rain fell at Mersa Matrûh on 10th, 11th, and 12th. Milder weather followed but on the 18th a shallow depression passed eastwards along the Mediterranean coast of Egypt, and rain was general on the littoral, being exceptionally severe in the extreme west. At Salûm 46 millimetres fell in little more than two hours on the evening of the 17th, a certain amount of damage being caused by the torrents, and coastal traffic was interrupted. This is the highest rainfall recorded in one day at Salum since observations began there twenty years ago.

Mild southerly winds followed, but on the 21st the wind veered to the northwest and the weather again became cool and showery.

Subsequently anticyclonic conditions with settled weather prevailed until the 27th, when a depression reached Greece. Its advance resulted in strong southerly winds on the coast and in the western desert, and sandstorms of moderate severity. The passage of this depression to Cyprus was accompanied by cooler weather in Egypt, while showers occurred as far south as Minya.

For the month as a whole the atmospheric pressure was everywhere above normal, except along the Mediterranean coast, but the departures were not large. The temperature was everywhere well below normal, except in the extreme south of the Sudan. In Cairo the relative humidity was above normal on all except four days, and for the month averaged five per cent above normal. In spite of severe storms in various localities, rainfall was below normal.

TABLE SHOWING THE DEPARTURES FROM NORMAL FOR NOVEMBER 1935

DISTRICTS	Barometric Pressure		Temperature						Rainfall	
			Maximum		Minimum		Max.+Min.÷2			
	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.
I. Mediterranean	1017·4	—0·1	23·5	—1·1	15·5	—0·8	19·5	—1·0	19	— 4
II. Middle Egypt	1017·9	+0·1	24·1	—1·8	12·0	—1·4	18·0	—1·6	2	— 4
III. Upper Egypt	1017·0	+0·4	26·1	—2·3	12·7	—1·1	19·4	—1·7	1	—
IV. North Sudan	1012.7	+0·2	33·6	—1·2	17·3	—1·5	25·4	—1·4	0	0
V. Red Sea *	1015·1	+1·6	30·7	—0·3	24·4	+0·8	27·6	+0·2	19	—25
VI. Central Sudan	1011·5	+0·3	35·5	—0·6	17·1	—0·4	26·3	—0·5	1	0
VII. South Sudan	1010·6	+0·2	36·8	+1·3	19·6	—0·2	28·2	+0·6	10	— 8

* Port Sudan only.

L. J. SUTTON
Director, Meteorological Service.

State of the River

Lake Albert at Butiaba remained steady during November. On December 1 its level was 32 centimetres below the level on the same date last year and was 31 centimetres below the normal. The lake is lower now than it has been at this time of the year in any year since 1929. From 1929 the lake rose each year to a maximum in November 1932 and then fell each year. In November 1932 the level was about 1 metre, 20 centimetres higher than it is at present.

The Bahr el Jebel at Jûba fell a little during the month. On the average it was nearly at the same level as it was during November of last year but it is well below normal.

The River Sobat levels at Nasser were well above normal throughout the month but a few centimetres below the levels in November of last year. The level remained steady for the first week and then fell at a slower rate than normally for the remainder of the month.

The White Nile at Malakal maintained a constant level throughout the month. The level was 9 centimetres above the normal average for November but 20 centimetres below the average level in November of last year.

The Blue Nile levels at Roseires were well above normal throughout the month and the rate of fall was on the average less than normal. From the 1st to the 5th and from the 11th to 27th the rate of fall was nearly normal but there were two periods, from the 6th to the 10th and the 28th to 30th when the levels remained almost steady. At Khartoum the levels of the Blue Nile were a little higher than the normal levels and the rate of fall was about the same as the normal rate. The steadying of the rate of all as compared with that at Roseires is partly due to the regulation of Sennar Reservoir.

The River Atbara levels at Khasm el Girba were nearly the same as both last year and the normal throughout the month.

The Main Nile at Kajnarti fell at a nearly normal rate throughout the month. The levels were about the same as those of last year and about 30 centimetres above the normal. The same remarks apply to the levels at Wadi Halfa for the first twenty days of the month, but during the last ten days the levels were affected by the filling of the Aswan Reservoir.

The differences of the mean levels in November 1935 from those of November 1934 and from the normal 1906–1930 were :—

STATION	Mean Differences of Levels	
	November 1935 minus November 1934	November 1935 minus Normal
	Metres	Metres
Juba	— 0·03	— 0·34
Nâsser	— 0·09	+ 0·34*
Malakâl	— 0·20	+ 0·09
Roseires	+ 0·26	+ 0·74
Khartoum	+ 0·04	+ 0·09
Khashm el Girba	+ 0·09	0·00
Kajnarti	+ 0·03	+ 0.30

* Nâsser normal is for 1922–1930 only.

Occasional Discharges

Observed by the Irrigation Department

Date	River	Site	Gauge Reading	Gauge Site	Disch. m.³ p.s.
			M.		
		River Sobât and Tributaries			
2-10-1935	Khôr Fullus	Mouth	13·70	H. Doleib	2
3-10-1935	" "	"	13·73	"	0
5-10-1935	" Sobât	D. S. Khôr Nyanding Junction	12·96	Nyanding Mouth	714
5-10-1935	"	" " " "	13·02	"	740
5-10-1935	"	" " " "	13·06	"	733
4-10-1935	Khôr Twalor	Mouth	10·65	Nâsser	74
4-10-1935	" "	"	10·69	"	90
4-10-1935	" "	"	10·70	"	105
3-10-1935	" Wakau	"	10·65	"	41
3-10-1935	" "	"	10·69	"	37
3-10-1935	" "	"	10·70	"	41
1-10-1935	Akôbo	"	15·69	Akôbo	16
1-10-1935	"	"	15·43	"	23
1-10-1935	"	"	15·06	"	28
0-10-1935	Agwei	"	15·50	"	35
0-10-1935	"	"	15·08	"	36
1-10-1935	"	"	14·80	"	31
		White Nile and Tributaries			
5-10-1935	Tonga Cut	Mouth	12·86	Tonga	6
5-10-1935	"	"	12·89	"	8
5-10-1935	"	"	12·91	"	13
5-10-1935	White Nile	U.S. Barboi Head, 100 mts. U.S.R.P. 10...	12·86	"	303
5-10-1935	" "	" " " " " " "	12·89	"	301
5-10-1935	" "	" " " " " " "	12·91	"	305
5	Khôr Yergol	Mouth	14·16	Khôr Yergol	0
5	" "	"	14·19	"	0
5	White Nile	U.S. Khôr Yergol	14·16	"	300
5	" "	" " "	14·18	"	312
5	" "	" " "	14·19	"	299
5	Outlet on left bank	Mouth, about 4 kms. U.S. Khôr Yergol	14·16	"	4
5	" " "	" " " " " "	14·18	"	5
5	" " "	" " " " " "	14·19	"	4
6-10-1935	Maya Sinyora	Mouth	14·08	Lake Nô	5
6-10-1935	" "	"	14·10	"	4
6-10-1935	" "	"	14·09	"	3
6-10-1935	White Nile	U.S. Maya Sinyora	14·08	"	314
6-10-1935	" "	" " "	14·10	"	312
6-10-1935	" "	" " "	14·09	"	307

P. Phillips

Director, Hydrological Service.

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November Discharges missing

Ministry of Public Works, Egypt — Physical Department

REPORT ON THE WEATHER AND STATE OF THE RIVER FOR DECEMBER 1935

The Weather

Very mild, the temperature was above normal practically throughout the month. On the 9th the temperature in Cairo reached 29°C which is the highest recorded at Ezbekia in December since observations began there in 1909.

On the 1st of the month a depression was situated near Cyprus and rainy weather was experienced in Lower Egypt. Settled conditions followed but on the 9th Egypt came under the influence of a depression over the central Mediterranean with a secondary over the western desert. Conditions became very disturbed with strong southeasterly winds and a rapid rise of temperature. At Salûm a velocity of 81 kilometres per hour was recorded. The secondary passed over Egypt in the following day, when the wind at Salûm reached 87 kilometres per hour. The weather became much cooler and there were light showers in Upper Egypt.

Subsequently with high pressure over Egypt and a shallow depression off the coast the weather became steadily warmer until the 16th when the passage of the depression was followed by northwest winds in Egypt and a pronounced fall in temperature.

From the 18th until nearly the end of the month Egypt was an area of high pressure, with light to moderate winds chiefly westerly prevailing, and mild weather, with occasional light showers in the north.

For the month as a whole the barometric pressure was everywhere below normal, while except in Upper Egypt the temperature was above normal. Morning mists were prevalent in the Delta during the period 4th to 9th and during the last week. Rainfall was considerably below normal except in the southern Sudan.

TABLE SHOWING THE DEPARTURES FROM NORMAL FOR DECEMBER 1935

DISTRICTS	BAROMETRIC PRESSURE		TEMPERATURE						RAINFALL	
			MAXIMUM		MINIMUM		MAX.+MIN./2			
	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal	1935	Difference from Normal
	mb.	mb.	°C.	°C.	°C.	°C.	°C.	°C.	mm.	mm.
I. Mediterranean	1017·6	—0·5	21·9	+1·6	11·6	—0·2	16·8	+0·7	8	—28
II. Middle Egypt	1018·5	—0·7	22·3	+1·4	8·2	—0·7	15·2	+0·4	1	— 8
III. Upper Egypt	1018·4	—0·7	23·5	+0·4	8·1	—1·0	15·8	—0·3	0	—
IV. North Sudan	1013.8	—1·1	31·6	+0·9	14·3	—0·1	23·0	+0·4	0	0
V. Red Sea *	—	—	28·5	+0·1	22·4	+1·0	25·4	+0·6	16	—10
VI. Central Sudan	1012·2	—1·0	33·9	+0·3	14·9	+0·8	24·4	+0·6	0	0
VII. South Sudan	1011·0	0·0	37·0	+1·2	18·5	+0·1	27·8	+0·6	11	+ 5

* Port Sudan only.

L. J. SUTTON
Director, Meteorological Service.

State of the River

Lake Albert at Butiaba fell 9 cms. during the month. Its level on January 1st, 1936 was 43 cms. below the normal and 36 cms. below that of the corresponding day of last year.

The Bahr el Jebel at Juba fell at normal rate, the levels being continuously below both the normal and those of last year.

The River Sobat at Nasser fell faster than normally. The levels which were lower than last year's throughout were 64 cms. above normal at the beginning of the month but 49 cms. below normal at the end.

The White Nile at Malakal was steady for the first nine days of the month and then fell at normal rate. The levels were above normal but below last year's throughout the month.

The Blue Nile at Roseires fell at normal rate, the levels remaining above both the normal and those of last year during the whole month.

At Khartoum the Blue Nile fell during the first five days, rose until the tenth owing to completion of Sennar Reservoir filling, and fell again thereafter. On the average the levels were a little above both the normal and last year's.

The Main Nile at Kajnarti fell at normal rate for the first fortnight, rose a little until the 22nd and fell again thereafter. The levels were above normal and practically the same as those of last year.

The differences of the mean levels in December 1935 from those of December 1934 and from the normal 1906–1930 were :—

STATION	Mean Differences of Levels	
	December 1935 minus December 1934	December 1935 minus Normal
	Metres	Metres
Juba	— 0·13	— 0·31
Nasser	— 0·56	+ 0·42*
Malakal	— 0·28	+ 0·25
Roseires	+ 0·22	+ 0·81
Khartoum	+ 0·05	+ 0·16
Kajnarti	+ 0·01	+ 0·23

* Nasser norm 1930 only.

Discharges of the Nile during November, 1935

Observed by the Irrigation Department

Esna (D.S. Barrage)

(Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	75·31	2650
14	74·04	1590
21	73·62	1420
28	73·54	1320
Approx. Monthly Mean		1980

Aswân

(Measured by Sluices)
(Aswân D.S. Gauge.)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	89·19	3590
2	89·02	3410
3	88·85	3300
4	88·68	3090
5	88·51	3010
6	88·34	2790
7	88·17	2610
8	88·00	2430
9	87·83	2240
10	87·66	2110
11	87·49	1960
12	87·29	1800
13	87·09	1620
14	86·89	1440
15	86·74	1340
16	86·72	1340
17	86·77	1390
18	86·77	1380
19	86·83	1450
20	86·82	1450
21	86·81	1450
22	86·73	1390
23	86·72	1390
24	86·71	1390
25	86·72	1390
26	86·71	1390
27	86·70	1390
28	86·69	1390
29	86·69	1390
30	86·81	1500
Approx Monthly Mean		1930
Normal Mean 1912-1934		2780

Halfa (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	5·23	4020
2	5·14	3870
4	4·97	3870
5	4·90	3720
7	4·72	3420
9	4·56	3280
10	4·49	3210
12	4·28	2920
14	4·13	2810
16	4·01	2730
Approx. Monthly Mean		—
Normal Mean 1912-1934		2860

Kajnarty (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
20	135.95	2470
21	135.87	2470
24	135.76	2320
26	135.68	2360
28	135.56	2290
Approx Monthly Mean		—
Normal Mean 1912-1934		2860

River Atbara (Kilo. 3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	10·86	92
12	10·65	77
17	10·53	66
22	10·40	58
26	10·28	50
30	10·20	45
Approx. Monthly Mean		74
Normal Mean 1912-1934		65

Hassanâb (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
6	12·88	2850
11	12·63	2480
17	12·49	2500
21	12·34	2130
25	12·23	1950
29	12·11	1940
Approx. Monthly Mean		2440
Normal Mean 1912-1934		2280

Tamaniât (Main Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	12·57	2900
8	12·34	2510
13	12·19	2320
18	12·00	2150
22	11·86	2000
26	11·75	1860
Approx. Monthly Mean		2280
Normal Mean 1912-1934		2200

Khartoum (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	12·93	1560
7	12·68	1250
12	12·50	1160
17	12·36	987
21	12·20	914
25	12·04	750
Approx. Monthly Mean		1060
Normal Mean 1912-1934		978

Sennâr (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	7·20	1280
4	7·18	1240
6	6·99	1090
9	6·94	1090
11	6·98	1090
13	6·88	1020
16	6·62	872
18	6·56	819
20	6·49	825
23	6·31	661
25	6·30	597
29	6·07	556*
Approx. Monthly Mean		906
Normal Mean 1912-1934		885

Gezîra Main Canal

(Kilo. 1·3)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	16·22	78
5	16·22	81
20	16·08	71
20	16·08	72
Approx. Monthly Mean		75
Normal Mean 1925-1934		64

Wad el Aies (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	8·96	1580
3	8·91	1460
5	8·86	1390
Approx. Monthly Mean		—
Normal Mean 1912-1934		1010

Roseires (Blue Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	15·28	1380
4	15·16	1320
6	15·14	1290
8	15·15	1290
10	15·16	1310
14	14·87	1170
16	14·73	1060
18	14·62	1030
20	14·55	954
22	14·48	925
24	14·35	874
26	14·24	839
28	14·18	785
30	14 18	790
Approx. Monthly Mean		1100
Normal Mean 1912-1934		1010

Mogren (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	13·04	1320
7	12·82	1260
12	12·64	1180
17	12·50	1170
21	12·34	1050
25	12.23	1030
Approx. Monthly Mean		1160
Normal Mean 1912-1934		1220

Malakâl (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	12·35	1190
10	12·35	1180
15	12·35	1190
20	12·35	1210
25	12·36	1200
30	12·35	1220
Approx. Monthly Mean		1200
Normal Mean 1912-1934		1240

Hillet Doleîb (River Sobât)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	13·79	759
9	13·79	757
13	13·79	766
19	13·79	773
23	13·79	767
29	13·80	769
Approx. Monthly Mean		765
Normal Mean 1912-1934		780

River Sobât (At Head)

(Nâsser Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	10·72	756
13	10·68	702
23	10·54	609
Approx. Monthly Mean		668
Normal Mean 1929-1934		666

River Gila (At Mouth)

(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·96	66
12	9·89	71
22	9·79	77
Approx Monthly Mean		72
Normal Mean 1929-1934		28

River Pibor

(U.S. Gila Junction)
(Gila Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	9·96	94
12	9·89	79
22	9·79	72
Approx. Monthly Mean		78
Normal Mean 1929-1934		130

* Measured at Hillet Sherif.

Discharges of the Nile during November 1935 (*continued*)

Observed by the Irrigation Department

Akôbo (River Pibor)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
5	14·74	29
10	14·69	21
15	14·62	18
20	14·57	17
25	14·50	16
30	14·40	14
Approx. Monthly Mean		20
Normal Mean 1929-1934		69

Bahr el Zerâf (Kilo. 3)

(Gauge at Mouth)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·81	172
18	12·82	169
28	12·81	166
Approx Monthly Mean		170
Normal Mean 1912-1934		164

Abu Tong (White Nile)

(Tonga Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
8	12·91	292
18	12·90	278
28	12·90	289
Approx. Monthly Mean		288
Normal Mean 1923-1934		297

Lake Nô (White Nile)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·06	298
17	14·07	312
27	14·06	311
Approx. Monthly Mean		308
Normal Mean 1923-1934		303

Bahr el Ghazâl

(At Mouth)

(Suddite Factory Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·04	— 9
17	14·04	2
27	14·04	— 5
Approx. Monthly Mean		— 3
Normal Mean 1923-1934		25

Bahr el Jebel (Kilo. 3)

(Lake Nô Gauge)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
7	14·06	314
17	14·07	308
27	14·06	310
Approx. Monthly Mean		310
Normal Mean 1923-1934		282

Gigging (Bahr el Jebel)

(Western Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
3	28·81	170
Approx. Monthly Mean		154
Normal Mean 1931-1934		234

Gemeiza (Bahr el Jebel)

(Eastern Channel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
2	428·75	637
Approx. Monthly Mean		589
Normal Mean 1931-1934		705

Terrakekka (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	13·22	795
Approx. Monthly Mean		726
Normal Mean 1931-1934		935

Mongalla (Bahr el Jebel)

Day of Month	Gauge Reading m.	Disch. m³. p.s.
1	11·72	818
6	11·55	739
11	11·45	715
16	11·40	691
21	11·33	669
26	11·30	664
Approx. Monthly Mean		706
Normal Mean 1912-1934		945

Occasional Discharges

Observed by the Irrigation Department

Date	River	Site	Gauge Reading M.	Gauge Site	Disch. m.³ p.s.
		River Sobât and Tributaries			
-11-1935	Sobât	D. S. Khôr Nyanding Junction	13·07	Nyanding Mouth	736
-11-1935	,,	,, ,, ,, ,, ...	13·08	,,	735
-11-1935	,,	,, ,, ,, ,, ...	13·02	,,	728
-11-1935	Khôr Twalor	Mouth	10·72	Nâsser	116
-11-1935	,, ,,	,, ...	10·67	,,	115
-11-1935	,, ,,	,, ...	10·54	,,	96
-11-1935	,, Wakau	,, ...	10·72	,,	45
-11-1935	,, ,,	,, ...	10·69	,,	36
-11-1935	,, ,,	,, ...	10·55	,,	27
-11-1935	Akôbo	,, ...	14·80	Akôbo	31
-11-1935	,,	,, ...	14·68	,,	30
-11-1935	,,	,, ...	14·54	,,	28
-11-1935	Agwei	,, ...	14·57	,,	21
-11-1935	,,	,, ...	14·40	,,	17
		White Nile and Tributaries			
-11-1935	Tonga Cut	Mouth	12·91	Tonga	4
-11-1935	,,	,, ...	12·90	,,	4
-11-1935	,,	,, ...	12·90	,,	3
-11-1935	White Nile	U.S. Barboi Head, 100 mts. U.S.R.P. 10...	12·91	,,	290
-11-1935	,, ,,	,, ,, ,, ,, ,, ,, ,, ...	12·90	,,	289
-11-1935	,, ,,	,, ,, ,, ,, ,, ,, ,, ...	12·90	,,	290
-11-1935	Khôr Yergol	Mouth	14·18	Khôr Yergol	0
-11-1935	,, ,,	,, ...	14·17	,,	0
-11-1935	,, ,,	,, ...	14·17	,,	0
-11-1935	White Nile	U.S. Khôr Yergol	14·18	,,	303
-11-1935	,, ,,	,, ,, ,, ...	14·17	,,	297
-11-1935	,, ,,	,, ,, ,, ...	14·17	,,	294
-11-1935	Outlet on left bank	Mouth, 200 mts. U.S.R.P. 6...	14·17	,,	3
-11-1935	Maya Sinyora	Mouth	14·07	Lake Nô	2
-11-1935	,, ,, ,,	,, ...	14·07	,,	1
-11-1935	,, ,, ,,	,, ...	14·06	,,	1
-11-1935	White Nile	U.S. Maya Sinyora	14·07	,,	303
-11-1935	,, ,,	,, ,, ,, ...	14·07	,,	307
-11-1935	,, ,,	,, ,, ,, ...	14·06	,,	306
		Jebel-Zerâf Cuts			
-11-1935	Head of Cut No. 1	100 mts. D.S. of Head	11·96	H. Cut 1	103

P. Phillips

Director, Hydrological Service.

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