

1977

REPUBLIQUE DU RWANDA

**DONNEES CLIMATOLOGIQUES DU RESEAU D'ECOCLIMATOLOGIE  
DE  
L'INSTITUT DES SCIENCES AGRONOMIQUES DU RWANDA  
(I. S. A. R.)  
ANNEE 1974**

BUREAU CLIMATOLOGIQUE

DE L'ISAR

KARAMA (1975)

REPUBLIQUE RWANDAISE

DONNEES CLIMATOLOGIQUES DU RESEAU D'ECOCLIMATOLOGIE

DE

L'INSTITUT DES SCIENCES AGRONOMIQUES DU RWANDA  
(ISAR)

ANNEE 1974.

SECTION CLIMATOLOGIQUE

DE L'ISAR.

KARAMA (1975)

T A B L E D E S M A T I E R E S.

I.- LISTE DES STATIONS CLIMATOLOGIQUES DU RESEAU D'ECOCлимATOLOGIE DE L'INSTITUT DES SCIENCES AGRONOMIQUES DU RWANDA (ISAR).....	3
II.- LA PLUIE.....	4
A. TOTAUX MENSUELS ET ANNUELS.....	5
B. FREQUENCES DES PLUIES DE DIVERSES HAUTEURS.....	8
C. INTENSITE DES PRECIPITATIONS.....	9
III.- LA TEMPERATURE DE L'AIR.....	10
A. TEMPERATURES EXTREMES ET MOYENNES.....	11
B. VARIATIONS MOYENNES HORAIRES DE LA TEMPERATURE ET MOYENNES VRAIES.....	13
C. TEMPERATURE MINIMA AU-DESSUS DU GAZON.....	16
IV.- LA TEMPERATURE DU SOL NU.....	17
A. TEMPERATURES MOYENNES A 10, 20 ET 50 CM DE PROFONDEUR A 06.00, 09.00, 12.00, 15.00 ET 18.00H TEMPS LOCAL MOYEN.....	18
B. EXTREMES DE LA TEMPERATURE A 10 ET 20 CM DE PROFONDEUR.....	19
V.- HUMIDITE DE L'AIR.....	20
A. HUMIDITES MOYENNES A 06.00, 09.00, 12.00, 15.00 ET 18.00H TEMPS LOCAL MOYEN ET HUMIDITES MOYENNES JOURNALIERES.....	21
B. VARIATIONS MOYENNES HORAIRES DES CARACTERISTIQUES DE L'HUMIDITE DE L'AIR.....	25
VI.- L'INSOLATION.....	34
A. INSOLATION MENSUELLE OU ANNUELLE EFFECTIVE ET RELATIVE.....	35
B. VARIATIONS HORAIRES MENSUELLES ET ANNUELLES (de 7 à 17h) EN % DE LA DUREE D'INSOLATION.....	37
VII.- L'EVAPORATION.....	40
A. POUVOIR EVAPORANT DE L'AIR (Evaporomètre Piche sous abri).....	41
B. EVAPORATION D'UNE NAPPE D'EAU LIBRE.....	42
C. EVAPOTRANSPIRATION POTENTIELLE ET ACTUELLE D'UNE COUVERTURE DE PASCALUM NOTATUM.....	43

I.- LISTE DES STATIONS CLIMATOLOGIQUES DU RESEAU D'ECOClimatologie  
DE L'INSTITUT DES SCIENCES AGRONOMIQUES DU RWANDA (ISAR)

NOMS	COORDONNEES GEOGRAPHIQUES		ALTITUDE EN M	DONNEES PUBLIEES	OBSERVATEUR
	LONG. E	LAT. S			
GISAKURA	29°05'	02°26'	1946	P.	AGRAR ET HYDROTECHNIK
KARAMA-KILIMBI	30°17'	02°16'	1347	P.T.H.E	ISAR
KARAMA-PLATEAU	30°16'	02°17'	1403	P.T.T.S.H.I.E.	ISAR
KINIGI	29°35'	01°27'	2200	P.	RÉGIE-PYRETHRE
MATA	29°33'	02°34'	1800	P.T.	PROJET-THE (OCIR)
MWAGA	29°04'	02°26'	±1560	P.	AGRAR ET HYDROTECHNIK
NYABISINDU (SONGA)	29°50'	02°25'	±1700	P.	ISAR
NYAMATA	30°05'	02°09'	1428	P.	PAROISSE CATHOLIQUE
NYAMISHABA	29°21'	02°04'	±1470	P.	MISSION SUISSE (C.T.S)
NYAMTYAGA (SONGA)	29°47'	02°24'	1800	P.T.	ISAR
RUBONA	29°46'	02°29'	1706	P.T.T.S.H.I.E.	ISAR
RUSUMO-AIDR	30°47'	02°22'	±1450	P.	A.I.D.R
RWERERE-COLLINE	29°53'	01°32'	2312	P.T.H.I.E.	ISAR
RWERERE-MARAIS	29°53'	01°30'	2060	P.T.E	ISAR
TAMIRA	29°21'	01°34'	±2300	P.T.	ISAR

(1) P.= Pluie; T.= température de l'air; T<sub>g</sub>.= température du sol; H.= humidité de l'air; I.=insolation; E.=évaporation

## II.- LA PLUIE.

### A. TOTAUX MENSUELS ET ANNUELS:

Lettres et signes conventionnels.

- P. = total mensuel et annuel des pluies.
- $(P)_N$  = normale (normale = moyenne de référence calculée sur le plus grand nombre d'années au cours de la période 1931-1970)
- $P-(P)_N$  = écart de P. à la normale.
- $\frac{100P}{(P)_N}$  = pourcentage de P. à la normale.
- J. = nombre de jours à pluie mesurable.
- M. = Chute de pluie maximum en 24 heures (08.00 à 08.00 h temps civil)
- ( ) = Le nombre entre parenthèses après le nom de la station, indique le nombre d'années d'observation au cours de la période 1931 - 1970.

### B. FREQUENCES DES PLUIES JOURNALIERES DE DIVERSES HAUTEURS:

### C. INTENSITE DES PRECIPITATIONS:

A. TOTALS MENSUELS ET ANNUELS.

MOIS	P.	(P) <sub>N</sub>		100P (P) <sub>N</sub>	J.	M.	P.	(P) <sub>N</sub>		100P (P) <sub>N</sub>	J.	M.	P.	(P) <sub>N</sub>		100P (P) <sub>N</sub>	J.	M.	
		P-(P) <sub>N</sub>	P-(P) <sub>N</sub>					P-(P) <sub>N</sub>	P-(P) <sub>N</sub>										
GISAKURA																			
J.	172.1	-	-	-	26	20.0	48.2	87	-38.8	55	16	19.4	52.5	80	-27.5	66	13	18.1	
F.	122.0	-	-	-	18	21.7	40.8	86	-45.2	47	12	22.0	38.8	86	-47.2	45	10	19.3	
M.	237.8	-	-	-	23	34.0	179.8	100	+79.8	180	14	54.0	195.4	106	+89.4	184	14	64.4	
A.	357.1	-	-	-	27	62.3	80.7	147	-66.3	55	21	19.6	83.4	141	-57.6	59	20	20.8	
M.	354.4	-	-	-	29	48.2	74.2	104	-29.8	71	15	29.0	70.9	89	-18.1	80	15	31.8	
J.	172.9	-	-	-	18	40.7	56.1	17	+39.1	330	6	42.0	63.1	16	+47.1	394	7	48.3	
J.	54.1	-	-	-	14	7.9	43.3	4	+39.3	1083	8	22.8	54.8	4	+50.8	1370	8	31.3	
A.	40.4	-	-	-	7	21.0	1.2	13	-11.8	9	1	1.2	0.6	12	-11.4	5	1	0.6	
S.	158.6	-	-	-	13	31.0	16.5	39	-22.5	42	7	7.3	11.8	39	-27.2	30	8	6.9	
O.	323.7	-	-	-	22	44.2	70.6	79	-8.4	89	11	25.8	62.9	81	-18.1	78	10	25.0	
N.	278.9	-	-	-	26	24.6	164.0	136	+28.0	120	23	42.0	135.5	125	+10.5	108	19	4.2	
D.	189.9	-	-	-	28	33.0	66.7	87	-20.3	77	22	19.4	74.1	74	+0.1	100	19	15.0	
A.	2461.9	-	-	-	251	62.3	842.1	899	-56.9	94	156	54.0	843.8	853	-9.2	99	144	64.4	
KINIGI (18)																			
J.	134.0	+ 27.0	125	18	31.6	128.6	123	+ 5.6	104	13	55.5	178.7	159	+ 19.7	122	22	20.5		
F.	146.1	+ 6.1	140	17	47.8	54.9	159	-104.1	34	13	15.5	114.0	214	-100.0	53	13	34.5		
M.	198.6	+ 11.6	187	24	34.0	167.8	171	- 3.2	98	20	29.5	290.1	206	+ 84.1	141	22	48.0		
A.	193.1	- 50.9	244	28	22.1	253.0	226	+ 27.0	112	22	49.4	282.1	242	+ 40.1	116	25	62.5		
M.	125.0	- 66.0	191	23	15.5	196.6	152	+ 44.6	129	20	41.0	267.5	193	+ 74.5	139	23	39.5		
J.	127.5	+ 63.5	64	15	30.8	71.9	22	+ 49.9	327	12	14.2	79.0	47	+ 32.0	168	14	30.6		
J.	68.9	+ 42.3	26	20	14.0	52.8	7	+ 45.8	754	9	31.0	68.2	28	+ 40.2	243	14	15.0		
A.	65.1	+ 5.1	60	7	46.4	2.4	37	- 34.6	6	1	2.4	53.4	43	+ 10.4	124	14	31.0		
S.	130.3	+ 17.3	113	14	26.6	123.7	94	+ 29.7	131	13	27.0	84.8	149	- 64.2	57	11	25.0		
O.	94.8	- 48.2	143	15	29.4	32.3	135	-102.7	24	14	6.3	160.0	230	- 70.0	69	21	38.1		
N.	274.2	+108.2	166	25	49.9	165.3	167	- 1.7	99	23	26.2	227.1	215	+ 12.1	106	26	44.0		
D.	72.0	- 62.0	134	18	14.7	54.6	142	- 87.4	38	16	13.8	135.7	170	- 34.3	80	19	40.0		
A.	1629.0	+ 54.0	103	229	49.9	1303.9	1435	-131.1	91	176	55.5	1940.6	1896	+ 44.6	102	211	62.5		
MATTA (15)																			
MMAGA (7)																			

KARAMA - KILIMBI (9)

KARAMA - PLATEAU (11)

MOIS P. (P)<sub>N</sub> P-(P)<sub>N</sub>  $\frac{100P}{(P)_N}$  J. M.

RWERERE-COLLINE (12)

J.	50.1	82	- 31.9	61	9	35.3	49.9	81	- 31.1	62	12	32.7	91.7	-	-	17	11.4
F.	118.0	108	+ 10.0	109	15	38.0	109.5	59	+ 10.5	111	13	39.0	74.6	-	-	12	21.1
M.	203.4	138	+ 65.4	147	18	25.8	231.4	126	+ 105.4	184	18	26.9	85.2	-	-	8	22.4
A.	191.3	197	- 5.7	97	24	23.4	261.9	181	+ 80.9	145	24	37.3	230.3	-	-	22	45.3
M.	205.2	109	+ 96.2	188	23	49.7	194.3	103	+ 91.3	189	23	51.2	66.0	-	-	13	12.8
J.	89.3	24	+ 65.3	372	12	27.6	70.9	24	+ 46.9	295	13	30.0	139.6	-	-	13	30.4
J.	128.4	12	+ 116.4	1070	13	30.3	137.3	9	+ 128.3	1525	13	38.8	116.3	-	-	15	40.0
A.	30.8	40	- 9.2	77	7	13.8	22.1	35	- 12.9	63	4	13.3	10.4	-	-	3	7.9
S.	98.7	113	- 14.3	87	15	48.9	94.9	107	- 12.1	89	15	52.9	107.1	-	-	11	24.6
O.	80.0	111	- 31.0	72	12	21.2	74.1	109	- 34.9	68	13	22.0	112.0	-	-	18	20.0
N.	83.8	136	- 52.2	62	20	14.4	86.5	124	- 37.5	70	21	15.0	133.8	-	-	21	23.9
D.	92.0	96	- 4.0	96	17	17.8	71.2	98	- 26.8	73	15	14.1	67.9	-	-	12	13.6

RWERERE-MARAIS (12)

A.	1371.0	1166	+205.0	117	185	49.7	1404.0	1096	+308.0	128	184	52.9	1234.9	-	-	165	45.3
----	--------	------	--------	-----	-----	------	--------	------	--------	-----	-----	------	--------	---	---	-----	------

TAMTRA

TABLEAU DES DIMENSIONS

MAXIMA MENSTRUÉS ET ANNÉES POUR UNE DURÉE CONTINUE DE 15', 30', 45', 60' ET 120'

	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	A.
<u>KARAMA-PLATEAU</u>													
15'	11.4	6.2	24.3	6.4	9.7	10.1	3.5	0.2	2.5	13.4	9.6	10.5	24.3
30'	14.6	11.1	38.9	9.6	17.6	17.2	6.4	0.3	4.4	23.5	12.4	12.7	33.9
45'	17.4	15.0	41.5	12.6	26.5	23.9	9.2	0.4	5.7	23.8	12.6	12.9	41.5
60'	18.0	15.4	43.8	13.3	30.6	31.3	10.4	0.5	6.0	23.9	12.6	12.9	43.8
120'	18.1	17.4	46.9	17.6	31.8	36.1	16.2	0.5	6.7	23.9	12.9	14.5	46.9
<u>MATA</u>													
15'	-	-	8.4	13.4	15.5	7.7	4.5	1.3	8.0	3.8	13.3	10.4	-
30'	-	-	13.3	20.7	23.2	8.7	7.7	1.8	9.5	5.0	18.4	12.4	-
45'	-	-	15.1	25.5	31.0	9.1	9.7	2.4	10.1	5.0	18.7	12.6	-
60'	-	-	16.5	28.2	34.0	9.1	12.2	2.4	12.1	5.0	20.7	12.6	-
120'	-	-	16.5	42.2	34.0	11.3	16.2	2.4	13.4	5.8	23.5	12.6	-
<u>RUBONA</u>													
15'	3.3	7.9	12.4	9.6	8.7	5.7	3.9	1.1	16.7	10.0	15.6	5.7	16.7
30'	4.3	12.1	19.6	16.5	11.0	10.3	7.4	1.5	21.5	15.6	18.6	6.3	21.5
45'	5.3	13.8	27.0	20.6	12.5	10.4	9.9	1.5	21.8	15.8	20.9	8.3	27.0
60'	6.0	14.8	29.0	23.0	12.9	10.4	12.1	1.5	22.1	15.8	21.9	9.0	29.0
120'	6.9	21.5	29.7	23.0	20.3	10.4	16.9	1.5	25.0	15.8	21.9	9.6	29.7
<u>RIVERRE-COLLINE</u>													
15'	2.1	17.7	13.5	8.5	15.6	5.5	9.2	9.2	10.4	5.6	5.4	9.4	17.7
30'	2.8	27.2	23.8	11.0	31.2	10.1	16.1	12.9	19.4	8.0	7.2	9.6	31.2
45'	2.8	30.5	24.9	13.5	35.4	12.5	19.5	13.4	24.1	11.8	10.0	9.8	35.4
60'	3.2	30.6	25.5	15.4	39.1	12.8	22.5	13.8	25.9	15.1	12.3	10.4	39.1
120'	3.2	35.3	26.3	17.3	48.0	12.8	22.5	13.8	33.7	21.0	13.6	10.6	48.0



III.- LA TEMPERATURE DE L'AIR.  
(EN DEGRES CENTIGRADES)

A. TEMPERATURES EXTREMES ET MOYENNES.

Lettres et signes conventionnels

- $\bar{T}_M$  = moyenne mensuelle ou annuelle de la température maximum journalière.  
 $\bar{T}_m$  = moyenne mensuelle ou annuelle de la température minimum journalière.  
 $\bar{T}_M$  = moyenne mensuelle ou annuelle de la température moyenne journalière ( $\frac{T_M + T_m}{2}$ ).  
 $\bar{T}_N - (\bar{T}_M)_N$  = écart de  $\bar{T}$  à la normale (normale = moyenne de référence calculée sur la période 1950 - 1970).  
 $T_A$  = température maximum absolue mensuelle ou annuelle.  
 $T_a$  = température minimum absolue mensuelle ou annuelle.

B. VARIATIONS MOYENNES HORAIRES DE LA TEMPERATURE ET MOYENNES VRAIES.

C. TEMPERATURE MINIMA AU-DESSUS DU GAZON.

Lettres conventionnelles

- $\bar{T}_{mg}$  = moyenne mensuelle ou annuelle de la température minima au-dessus du gazon.  
 $T_{ag}$  = température minimum absolue mensuelle ou annuelle au-dessus du gazon.

A. TEMPERATURES EXTREMES ET MOYENNES

MOIS	$T_m$	$T_m$	$T_\mu$	$T_m - (T_\mu)_N$	$T_A$	$T_a$	$T_m$	$T_\mu$	$T_m - (T_\mu)_N$	$T_A$	$T_a$	$T_m$	$T_\mu$	$T_m - (T_\mu)_N$	$T_A$	$T_a$
------	-------	-------	---------	-------------------	-------	-------	-------	---------	-------------------	-------	-------	-------	---------	-------------------	-------	-------

KARAWA-KILIMBI (6)

J.	27.7	13.0	20.3	-0.5	30.4	9.6	27.8	13.8	20.8	+0.2	31.2	11.4	24.8	11.3	18.1	-0.5	28.6	9.0
F.	28.8	13.0	20.9	+0.1	31.8	11.2	28.6	13.7	21.1	+0.4	32.2	12.2	25.1	10.9	18.0	-0.5	28.8	9.0
M.	28.6	15.0	21.8	+0.7	32.2	11.1	28.3	15.1	21.7	+0.7	32.2	12.8	24.5	12.6	18.5	-0.1	27.6	9.8
A.	26.9	15.4	21.1	-0.1	29.8	12.5	26.4	13.7	20.1	-0.8	29.4	9.1	23.9	12.7	18.3	-0.2	27.9	9.8
M.	27.6	14.7	21.1	-0.1	29.5	12.5	26.8	15.2	21.0	+0.3	29.0	12.6	22.8	12.6	17.7	-0.1	29.0	10.0
J.	27.8	14.9	21.3	+1.2	29.6	12.8	27.1	15.5	21.3	+0.9	29.3	13.9	23.2	12.7	17.9	+0.8	27.2	10.2
J.	26.0	13.7	19.9	-0.2	30.0	9.4	25.4	15.3	20.3	-0.3	28.9	11.1	21.2	11.7	16.5	-0.8	25.0	9.2
A.	30.0	12.6	21.3	+0.3	32.8	10.0	29.3	14.6	21.9	+0.2	32.2	11.8	24.7	11.1	17.9	-0.1	27.2	9.0
S.	29.7	13.3	21.5	0.0	32.4	10.6	29.4	14.5	21.9	0.0	31.6	12.0	23.9	11.5	19.7	+1.0	26.0	9.2
O.	29.8	14.0	21.9	+0.9	32.6	10.5	29.5	15.2	22.3	+1.0	30.2	13.0	25.3	11.7	18.5	+0.6	27.6	9.6
N.	27.6	15.3	21.5	+1.3	30.8	13.6	27.2	15.7	21.5	+1.0	30.2	13.8	24.4	12.6	18.5	+0.6	27.6	10.0
D.	26.3	13.8	20.1	-0.3	29.9	11.0	26.0	14.5	20.3	-0.3	28.8	11.6	23.5	11.3	17.4	-0.8	26.2	8.8

KARAWA-PLATEAU (11)

A.	28.1	14.1	21.1	+0.3	32.8	9.4	27.6	14.7	21.1	+0.2	32.2	9.1	23.9	11.9	17.9	-0.2	29.0	8.8
----	------	------	------	------	------	-----	------	------	------	------	------	-----	------	------	------	------	------	-----

NYAMITYAGA (13)

J.	25.9	14.4	20.1	+0.1	28.5	12.5	24.8	13.2	19.0	-0.2	27.7	10.7	19.8	11.5	15.7	-0.1	21.5	9.8
F.	25.8	14.7	20.3	+0.2	29.5	13.0	25.4	13.4	19.4	+0.2	28.0	11.6	20.4	12.0	16.2	+0.4	22.8	9.6
M.	26.2	15.6	20.9	+1.0	30.0	14.0	25.0	14.7	19.9	+0.7	28.3	11.9	19.6	12.3	15.9	+0.2	22.5	11.1
A.	24.2	15.0	19.6	0.0	26.5	12.5	23.8	14.6	19.2	+0.2	26.3	11.3	19.4	11.9	15.7	+0.2	22.4	10.5
M.	24.2	14.9	19.5	+0.1	26.0	12.5	23.6	14.6	19.1	+0.2	25.2	11.9	18.8	11.9	15.3	0.0	20.7	10.5
J.	24.5	15.1	19.8	+0.3	26.0	14.0	22.9	14.7	18.8	+0.3	25.1	13.0	18.6	11.7	15.1	0.0	20.7	10.8
J.	23.0	14.3	18.7	-1.1	26.0	12.5	21.9	13.6	17.7	-1.2	25.7	11.0	17.5	10.9	14.2	-1.1	21.6	9.4
A.	26.2	15.2	20.7	0.0	28.5	13.5	25.7	12.5	19.1	-0.8	28.3	10.8	20.4	11.8	16.1	+0.2	22.5	10.3
S.	25.5	14.8	20.1	-0.7	28.0	12.0	24.9	13.6	19.3	-0.7	27.5	11.9	20.0	11.9	15.9	+0.0	22.2	10.5
O.	26.5	15.3	20.9	+0.5	29.5	13.0	26.1	14.4	20.3	+0.8	28.1	12.5	20.6	12.1	16.3	+0.7	21.6	10.3
N.	25.4	14.9	20.1	+0.3	30.0	13.0	24.3	14.4	19.3	+0.5	26.5	12.1	19.6	12.0	15.8	+0.7	21.6	10.3
D.	24.2	14.5	19.3	-0.4	26.0	12.5	23.0	13.6	18.3	-0.7	25.9	11.2	19.1	11.9	15.5	-0.4	22.3	10.3
A.	25.1	14.9	20.0	0.0	30.0	12.0	24.3	13.9	19.1	-0.1	28.3	10.7	19.4	11.8	15.6	+0.1	22.8	9.4

RUBONA (21)

J.	25.9	14.4	20.1	+0.1	28.5	12.5	24.8	13.2	19.0	-0.2	27.7	10.7	19.8	11.5	15.7	-0.1	21.5	9.8
F.	25.8	14.7	20.3	+0.2	29.5	13.0	25.4	13.4	19.4	+0.2	28.0	11.6	20.4	12.0	16.2	+0.4	22.8	9.6
M.	26.2	15.6	20.9	+1.0	30.0	14.0	25.0	14.7	19.9	+0.7	28.3	11.9	19.6	12.3	15.9	+0.2	22.5	11.1
A.	24.2	15.0	19.6	0.0	26.5	12.5	23.8	14.6	19.2	+0.2	26.3	11.3	19.4	11.9	15.7	+0.2	22.4	10.5
M.	24.2	14.9	19.5	+0.1	26.0	12.5	23.6	14.6	19.1	+0.2	25.2	11.9	18.8	11.9	15.3	0.0	20.7	10.5
J.	24.5	15.1	19.8	+0.3	26.0	14.0	22.9	14.7	18.8	+0.3	25.1	13.0	18.6	11.7	15.1	0.0	20.7	10.8
J.	23.0	14.3	18.7	-1.1	26.0	12.5	21.9	13.6	17.7	-1.2	25.7	11.0	17.5	10.9	14.2	-1.1	21.6	9.4
A.	26.2	15.2	20.7	0.0	28.5	13.5	25.7	12.5	19.1	-0.8	28.3	10.8	20.4	11.8	16.1	+0.2	22.5	10.3
S.	25.5	14.8	20.1	-0.7	28.0	12.0	24.9	13.6	19.3	-0.7	27.5	11.9	20.0	11.9	15.9	+0.0	22.2	10.5
O.	26.5	15.3	20.9	+0.5	29.5	13.0	26.1	14.4	20.3	+0.8	28.1	12.5	20.6	12.1	16.3	+0.7	21.6	10.3
N.	25.4	14.9	20.1	+0.3	30.0	13.0	24.3	14.4	19.3	+0.5	26.5	12.1	19.6	12.0	15.8	+0.7	21.6	10.3
D.	24.2	14.5	19.3	-0.4	26.0	12.5	23.0	13.6	18.3	-0.7	25.9	11.2	19.1	11.9	15.5	-0.4	22.3	10.3
A.	25.1	14.9	20.0	0.0	30.0	12.0	24.3	13.9	19.1	-0.1	28.3	10.7	19.4	11.8	15.6	+0.1	22.8	9.4

RWERERE-COLLINE (12)

J.	25.9	14.4	20.1	+0.1	28.5	12.5	24.8	13.2	19.0	-0.2	27.7	10.7	19.8	11.5	15.7	-0.1	21.5	9.8
F.	25.8	14.7	20.3	+0.2	29.5	13.0	25.4	13.4	19.4	+0.2	28.0	11.6	20.4	12.0	16.2	+0.4	22.8	9.6
M.	26.2	15.6	20.9	+1.0	30.0	14.0	25.0	14.7	19.9	+0.7	28.3	11.9	19.6	12.3	15.9	+0.2	22.5	11.1
A.	24.2	15.0	19.6	0.0	26.5	12.5	23.8	14.6	19.2	+0.2	26.3	11.3	19.4	11.9	15.7	+0.2	22.4	10.5
M.	24.2	14.9	19.5	+0.1	26.0	12.5	23.6	14.6	19.1	+0.2	25.2	11.9	18.8	11.9	15.3	0.0	20.7	10.5
J.	24.5	15.1	19.8	+0.3	26.0	14.0	22.9	14.7	18.8	+0.3	25.1	13.0	18.6	11.7	15.1	0.0	20.7	10.8
J.	23.0	14.3	18.7	-1.1	26.0	12.5	21.9	13.6	17.7	-1.2	25.7	11.0	17.5	10.9	14.2	-1.1	21.6	9.4
A.	26.2	15.2	20.7	0.0	28.5	13.5	25.7	12.5	19.1	-0.8	28.3	10.8	20.4	11.8	16.1	+0.2	22.5	10.3
S.	25.5	14.8	20.1	-0.7	28.0	12.0	24.9	13.6	19.3	-0.7	27.5	11.9	20.0	11.9	15.9	+0.0	22.2	10.5
O.	26.5	15.3	20.9	+0.5	29.5	13.0	26.1	14.4	20.3	+0.8	28.1	12.5	20.6	12.1	16.3	+0.7	21.6	10.3
N.	25.4	14.9	20.1	+0.3	30.0	13.0	24.3	14.4	19.3	+0.5	26.5	12.1	19.6	12.0	15.8	+0.7	21.6	10.3
D.	24.2	14.5	19.3	-0.4	26.0	12.5	23.0	13.6	18.3	-0.7	25.9	11.2	19.1	11.9	15.5	-0.4	22.3	10.3
A.	25.1	14.9	20.0	0.0	30.0	12.0	24.3	13.9	19.1	-0.1	28.3	10.7	19.4	11.8	15.6	+0.1	22.8	9.4

RUBONA

MOIS	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3	4	5	6-18h	18-6h	6-6h		
J.	13.7	14.0	15.9	19.3	20.6	21.7	22.5	23.0	22.8	22.4	21.5	22.4	21.8	22.7	21.7	22.7	22.2	22.6	22.7	22.3	21.7	20.7	20.7	20.7	19.1	19.1	18.6	17.3	
F.	13.8	14.1	15.9	18.9	21.0	22.2	22.8	23.4	23.7	23.4	23.0	22.8	23.7	23.4	23.4	23.7	23.5	24.6	25.1	25.0	24.8	23.7	23.7	23.7	23.7	20.0	20.0	19.0	18.6
M.	15.1	15.6	17.2	19.4	20.9	22.2	22.7	23.1	22.6	22.0	21.8	21.8	21.5	21.5	21.4	21.5	21.2	20.4	20.7	20.8	20.8	20.6	20.6	20.6	20.6	20.0	19.0	18.6	18.0
A.	14.8	15.2	16.5	18.8	20.2	21.1	21.4	21.4	21.5	21.5	21.8	21.8	21.8	21.5	21.5	21.2	20.7	24.6	25.1	25.0	24.8	23.7	23.7	23.7	23.7	23.7	21.8	21.8	21.8
M.	14.8	15.1	16.8	18.4	20.1	20.8	21.2	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	20.4	20.7	21.0	20.8	20.8	20.8	20.8	20.8	20.0	19.0	18.6	18.0
J.	14.8	15.3	16.5	18.4	19.7	20.5	21.0	21.5	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	20.4	20.7	21.0	20.8	20.8	20.8	20.8	20.8	20.0	19.0	18.6	18.0
J.	13.8	14.1	15.1	16.9	18.3	19.3	20.0	20.4	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.4	20.7	21.0	20.8	20.8	20.8	20.8	20.8	20.0	19.0	18.6	18.0
A.	14.5	14.8	16.6	19.7	21.6	22.9	23.7	24.6	25.1	25.0	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.6	25.1	25.0	24.8	24.8	24.8	24.8	24.8	23.7	21.8	21.8	21.8
S.	14.2	14.9	16.9	19.7	20.9	21.9	22.9	23.0	23.4	23.5	23.4	23.5	23.5	23.5	23.5	23.5	23.5	23.0	23.4	23.5	23.4	23.4	23.4	23.4	23.4	22.0	20.0	20.0	20.0
O.	14.7	15.9	18.5	21.1	22.5	23.4	24.3	24.5	24.5	23.8	23.8	23.8	23.8	23.8	23.8	23.8	24.5	24.5	24.5	23.8	23.8	23.8	23.8	23.8	23.8	21.5	19.8	19.8	19.8
N.	14.7	15.5	17.4	19.6	20.7	21.7	22.5	22.9	22.8	21.0	19.8	18.4	17.3	17.3	17.3	17.3	22.9	22.9	22.8	21.0	21.0	19.8	18.4	17.3	17.3	21.5	19.8	19.8	19.8
D.	14.0	14.5	16.1	18.3	19.9	20.7	21.1	21.3	21.7	21.5	20.4	19.7	18.3	17.3	17.3	17.3	21.1	21.3	21.7	21.5	21.5	20.4	19.7	18.3	17.3	21.5	19.7	19.7	19.7
A.	14.4	14.9	16.6	19.1	20.5	21.5	22.2	22.6	22.7	22.3	21.7	20.7	19.1	19.1	19.1	19.1	22.2	22.6	22.7	22.3	21.7	20.7	20.7	20.7	19.1	19.1	19.1	19.1	19.1
J.	17.9	17.2	17.3	16.9	16.8	15.9	15.3	14.8	14.4	14.1	13.9	20.0	14.5	14.5	14.5	14.5	15.3	14.8	14.8	15.6	15.2	15.0	15.2	15.0	15.0	20.0	17.3	17.3	17.3
F.	18.5	18.2	17.7	17.4	17.0	16.5	15.8	15.2	14.7	14.2	14.1	14.2	14.2	14.2	14.2	14.2	16.3	16.0	15.8	15.6	15.4	15.4	15.4	15.4	15.4	20.4	16.4	16.4	16.4
M.	18.8	18.3	18.0	17.7	17.2	16.7	16.3	16.0	15.6	15.4	15.1	15.4	15.4	15.4	15.4	15.4	16.0	15.7	15.4	15.4	15.4	15.4	15.4	15.4	15.4	20.5	17.0	17.0	17.0
A.	17.5	17.3	17.1	16.9	16.4	16.4	16.0	15.7	15.4	15.1	14.9	14.9	14.9	14.9	14.9	14.9	15.8	15.4	15.1	15.1	15.1	15.1	15.1	15.1	15.1	19.5	16.3	16.3	16.3
M.	17.6	17.4	17.1	16.9	16.5	16.1	15.8	15.4	15.1	14.9	14.7	14.7	14.7	14.7	14.7	14.7	15.4	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	19.6	16.3	16.3	16.3
J.	18.4	18.0	17.5	17.1	16.8	16.5	16.2	15.8	15.5	15.2	14.7	14.7	14.7	14.7	14.7	14.7	16.2	15.8	15.5	15.2	15.2	15.2	15.2	15.2	15.2	19.6	16.2	16.2	16.2
J.	18.1	17.7	17.3	16.8	16.4	16.0	15.6	15.3	14.8	14.5	14.0	14.0	14.0	14.0	14.0	14.0	16.6	15.8	15.5	15.2	15.2	15.2	15.2	15.2	15.2	19.6	16.6	16.6	16.6
A.	20.7	20.3	19.8	19.1	18.4	17.7	17.2	16.6	16.3	16.0	15.8	15.8	15.8	15.8	15.8	15.8	17.2	16.6	16.3	16.0	16.0	16.0	16.0	16.0	16.0	18.5	16.1	16.1	16.1
S.	19.3	18.9	18.5	17.9	17.2	16.7	16.1	15.5	15.0	15.4	14.8	14.7	14.7	14.7	14.7	14.7	16.1	15.5	15.2	15.0	15.0	15.0	15.0	15.0	15.0	21.7	17.9	17.9	17.9
O.	19.2	18.7	18.5	17.9	17.3	16.7	16.3	15.6	15.2	14.8	14.8	14.8	14.8	14.8	14.8	14.8	16.3	15.6	15.2	15.0	15.0	15.0	15.0	15.0	15.0	20.8	16.8	16.8	16.8
N.	16.7	16.4	16.3	16.0	15.7	15.5	15.3	15.0	14.9	14.8	14.8	14.8	14.8	14.8	14.8	14.8	16.3	15.6	15.2	15.0	15.0	15.0	15.0	15.0	15.0	21.7	16.9	16.9	16.9
D.	17.8	17.3	17.3	17.0	16.6	16.0	15.5	15.0	14.7	14.3	13.9	13.9	13.9	13.9	13.9	13.9	15.5	15.0	14.9	14.8	14.8	14.8	14.8	14.8	14.8	19.9	15.6	15.6	15.6
A.	18.4	18.0	17.7	17.3	16.9	16.4	15.9	15.5	15.1	14.8	14.5	20.1	16.3	16.3	16.3	16.3	15.9	15.5	15.1	14.8	14.8	14.8	14.8	14.8	14.8	19.3	15.9	15.9	15.9



THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
CHICAGO, ILLINOIS

REPORT OF THE RESEARCH GROUP  
ON THE CHEMISTRY OF  
THE CARBON-13 ISOTOPE

BY  
R. M. FREEMAN, JR.  
AND  
R. L. BARKER

RECEIVED  
MAY 15 1955

CHICAGO, ILLINOIS  
1955

Published by the  
UNIVERSITY OF CHICAGO PRESS  
CHICAGO, ILLINOIS

Copyright © 1955  
by the University of Chicago  
All rights reserved

Printed in the  
United States of America

A. TEMPERATURES MOYENNES A 10, 20, ET 50 CM DE PROFONDEUR A 06.00, 09.00, 12.00, 15.00 ET 18.00 H TEMPS LOCAL MOYEN.

KARANA-PLATEAU

MOIS	06.00			09.00			12.00			15.00			18.00		
	T10	T20	T50	T10	T20	T50	T10	T20	T50	T10	T20	T50	T10	T20	T50
J.	20.4	22.8	24.7	22.6	23.9	24.7	25.6	23.2	24.7	28.3	24.9	24.6	27.8	25.8	24.5
F.	20.4	22.9	24.6	21.3	22.6	24.7	25.8	23.2	24.6	29.1	25.2	24.6	28.6	26.3	24.5
M.	21.7	23.9	25.7	22.6	23.7	25.7	27.0	24.5	25.7	30.3	26.3	25.6	29.1	27.4	25.5
A.	20.5	22.5	24.0	21.6	22.3	24.0	26.6	22.8	24.0	27.8	24.6	23.9	26.7	25.3	23.9
M.	21.1	23.3	24.9	21.9	23.0	24.9	26.4	23.7	24.8	30.9	26.6	26.0	29.1	26.5	24.7
W.	22.8	25.1	26.0	23.4	24.5	26.1	27.3	25.5	26.1	27.0	23.8	23.6	29.1	27.0	25.9
J.	20.4	22.2	23.7	20.8	21.9	23.7	24.3	22.3	23.7	32.0	27.4	26.6	30.7	28.4	26.5
J.	23.5	25.9	26.7	23.7	25.3	26.7	28.2	25.7	26.7	31.5	27.5	26.3	29.9	28.1	26.2
A.	22.6	25.5	26.1	23.5	24.5	26.5	28.4	25.3	26.5	31.4	27.4	24.3	28.0	25.4	24.3
S.	22.1	25.8	26.5	23.3	24.5	26.5	25.9	23.2	24.5	28.0	24.9	24.3	26.1	23.9	23.3
O.	20.4	22.6	24.4	21.7	22.3	24.5	23.3	21.7	23.5	26.1	23.2	23.4	25.3	23.9	23.3
N.	19.4	21.5	23.5	20.2	21.2	23.5	23.3	21.7	23.5	29.3	25.6	25.0	28.3	26.4	24.9
D.	21.3	23.7	25.3	22.2	23.3	25.1	26.4	23.9	25.1	29.3	25.6	25.0	28.3	26.4	24.9

RUBONA

J.	19.6	20.9	22.6	19.6	20.4	22.5	22.5	21.4	22.7	25.8	23.6	22.5	25.5	24.5	22.6
F.	19.3	20.7	22.3	19.4	20.3	22.2	22.5	21.2	22.1	25.7	23.5	22.0	25.7	24.2	22.0
M.	20.4	21.6	23.1	20.3	21.2	23.0	23.3	22.1	22.6	25.3	24.1	22.5	25.9	24.7	22.8
M.	19.6	20.6	22.0	19.5	20.2	21.9	22.1	21.1	21.8	24.7	22.8	21.7	24.4	23.3	21.3
A.	18.1	19.8	21.9	19.3	19.6	21.7	23.7	21.2	21.6	26.2	23.4	21.6	24.5	23.9	21.9
W.	18.2	20.1	22.1	18.1	19.8	21.9	24.3	21.5	21.8	25.4	24.0	20.6	24.7	24.2	20.8
J.	17.3	19.1	20.9	18.1	18.7	20.8	21.8	20.2	20.7	31.0	27.0	23.8	29.1	23.7	24.0
J.	19.9	22.2	24.3	20.8	21.8	24.0	26.8	23.9	23.9	29.0	25.5	22.6	26.2	25.8	23.6
A.	18.0	20.7	22.8	19.7	20.1	22.7	25.8	22.7	22.5	32.1	26.8	23.4	27.2	26.8	23.6
S.	17.9	21.1	23.8	20.7	21.0	23.6	30.4	23.8	23.4	29.5	22.8	22.0	29.5	24.4	21.9
O.	17.9	19.6	21.8	20.7	19.6	20.0	27.9	22.0	21.8	29.0	23.7	21.3	24.0	24.0	21.5
N.	17.1	19.6	21.8	19.0	19.0	21.5	26.5	21.1	21.4	27.5	23.7	21.3	24.0	24.0	21.5
D.	16.4	19.1	21.7	19.0	19.0	21.5	26.5	21.1	21.4	27.5	23.7	21.3	24.0	24.0	21.5
A.	18.5	20.5	22.4	19.8	20.1	22.1	24.8	21.8	22.2	27.5	24.1	22.1	25.4	24.7	22.2

B. EXTREMES DE LA TEMPERATURE A 10 ET 20 CM DE HAUTEUR.

RUBONA

MOIS	T <sub>A10</sub>	T <sub>A20</sub>	T <sub>a10</sub>	T <sub>a20</sub>	T <sub>A10</sub>	T <sub>A20</sub>	T <sub>a10</sub>	T <sub>a20</sub>
J.	27.1	25.9	19.5	20.2	32.7	28.1	27.0	18.3
F.	26.8	25.0	19.3	20.0	34.1	29.0	17.4	18.4
M.	27.5	25.6	20.4	21.0	33.5	29.3	18.4	18.9
A.	25.7	24.2	19.3	19.9	31.4	28.0	17.3	18.0
M.	27.1	24.2	18.0	19.4	31.9	27.5	15.4	17.4
J.	27.5	24.6	18.1	19.3	30.7	27.0	16.1	17.7
J.	26.0	23.3	17.2	18.7	32.9	28.3	14.9	16.6
A.	31.1	28.1	19.7	21.8	33.9	30.1	17.3	20.4
S.	29.9	26.5	19.1	19.8	34.7	30.4	15.8	17.6
O.	32.9	27.7	21.0	20.7	37.1	30.5	16.0	18.4
N.	30.5	25.5	17.1	19.3	34.8	29.1	15.3	17.4
D.	29.8	24.4	16.3	18.8	36.2	28.4	13.2	16.4
A.	28.5	25.4	18.7	19.9	37.1	30.5	13.2	16.4

V.-L' HUMIDITE DE L' AIR.

A. HUMIDITES MOYENNES A 06.00, 09.00, 12.00, 15.00 ET 18.00 H. TEMPS LOCAL MOYEN ET HUMIDITES MOYENNES JOURNALIERES.  
Lettres conventionnelles

- $\bar{T}$  = moyenne mensuelle ou annuelle de la température du thermomètre sec à 1'heure h.  
 $\bar{e}$  = moyenne mensuelle ou annuelle de la tension de vapeur en millibars à 1'heure h. ou journalière J.  
 $\Delta \bar{e}$  = moyenne mensuelle ou annuelle du déficit de saturation en millibars à 1'heure h. ou journalière J.  
 $\bar{U}$  = moyenne mensuelle ou annuelle de l'humidité relative en pour cent à 1'heure h. ou journalière J.  
J. = moyenne journalière calculée sur les heures d'éclaircissement :  $J. = \frac{1}{2} (06.00 + 18.00 + 12.00)$ .

B. VARIATIONS MOYENNES HORAIRES DES CARACTERISTIQUES DE L' HUMIDITE DE L' AIR.

- a.-Tension de vapeur d'eau en millibars.  
b.-Humidité relative en pour cent.  
c.-Déficit de saturation en millibars.



THE UNIVERSITY OF CHICAGO

LIBRARY

PHYSICS

1920

THE UNIVERSITY OF CHICAGO

LIBRARY

PHYSICS

1920

THE UNIVERSITY OF CHICAGO

LIBRARY

PHYSICS

1920

THE UNIVERSITY OF CHICAGO

LIBRARY

PHYSICS

1920

THE UNIVERSITY OF CHICAGO

LIBRARY

PHYSICS

1920

A. HUMIDITES MOYENNES A 06.00, 09.00, 12.00, 15.00 ET 18.00 H. TEMPS LOCAL MOYEN ET HUMIDITES MOYENNES JOURNALIERES.

MOIS	06.00		09.00		12.00		15.00	
	°	′	°	′	°	′	°	′
J.	14.1	15.7	19.5	18.1	24.5	16.8	24.4	16.6
F.	14.3	15.7	19.3	17.7	25.2	16.5	21.6	16.5
M.	16.0	17.3	21.3	19.0	25.8	17.3	26.1	16.6
A.	16.4	18.1	20.6	19.6	23.6	19.0	24.1	18.7
M.	16.0	17.7	20.3	19.3	24.5	18.2	23.5	17.9
J.	15.9	17.0	20.9	18.2	25.1	16.1	25.8	15.5
J.	14.7	15.8	19.5	17.0	23.4	15.4	24.4	15.0
A.	13.9	14.4	21.8	15.3	26.8	12.8	27.3	11.9
S.	14.6	15.7	21.5	17.5	25.9	15.3	27.1	14.7
C.	15.5	17.1	22.0	20.2	26.3	18.2	26.1	17.7
N.	16.6	18.4	20.8	20.7	23.3	20.2	22.7	19.4
D.	15.4	17.2	18.9	19.2	22.9	19.1	23.2	18.5
A.	15.3	16.7	20.5	18.5	24.8	17.1	24.7	16.6

KARMA-KITIMBI

MOIS

	ᄃ	ᄅ	ᄇ	ᄉ	ᄋ	ᄍ	ᄏ	ᄑ	ᄓ	ᄕ	ᄗ	ᄙ	ᄛ	ᄝ	ᄟ	ᄡ	ᄣ	ᄥ
J.	14.7	15.8	1.0	19.9	17.7	5.7	77	24.3	16.8	14.3	57	24.2	15.00	16.2	14.4	55		
F.	14.9	15.8	1.2	19.7	17.8	5.3	78	24.8	16.5	15.3	54	25.0	15.8	16.6	14.6	52		
M.	16.3	17.3	1.4	21.4	18.1	7.6	72	25.4	17.0	15.8	54	25.7	16.5	17.4	14.8	55		
A.	16.4	17.8	0.9	20.6	19.2	5.3	80	22.9	18.7	9.5	68	23.5	18.4	11.0	11.0	65		
M.	15.9	17.3	0.9	20.3	18.7	5.2	79	23.9	18.0	11.9	61	23.9	17.4	12.7	12.7	60		
J.	16.0	16.8	1.5	21.0	17.9	7.0	73	24.5	16.7	14.3	54	25.2	16.0	16.3	14.2	51		
A.	15.2	15.6	1.8	19.4	17.0	5.7	76	22.7	16.1	11.7	60	23.8	15.7	14.2	14.2	54		
S.	15.2	14.5	2.8	21.7	15.2	10.9	58	26.2	13.7	20.5	40	27.6	12.7	24.2	24.2	35		
O.	15.1	15.4	1.8	22.5	16.1	11.2	60	26.0	15.1	18.9	46	26.9	14.5	21.3	21.3	43		
N.	16.0	16.6	1.5	22.7	18.1	9.7	66	26.5	16.8	18.2	49	26.2	16.3	18.3	18.3	50		
D.	16.3	17.7	0.8	21.1	19.3	5.8	78	24.6	18.3	12.9	59	22.4	18.2	9.3	9.3	69		
D.	15.2	16.6	0.7	18.9	18.8	3.0	87	22.7	18.5	9.3	68	22.9	18.0	10.3	10.3	66		
A.	15.6	16.4	1.3	20.8	17.8	6.9	74	24.5	16.8	14.4	56	24.8	16.3	15.5	15.5	55		
KARAMA-PLATEAU																		
J.	21.3	16.9	8.7	16.5	9.6	66	66	16.5	9.6	16.5	66							
F.	22.1	16.5	10.4	16.3	5.8	72	72	16.3	5.8	16.3	72							
M.	22.3	17.3	10.0	17.1	10.7	67	67	17.1	10.7	17.1	67							
A.	20.7	18.5	6.1	18.4	6.5	77	77	18.4	6.5	18.4	77							
M.	20.7	18.1	6.4	17.9	7.8	73	73	17.9	7.8	17.9	73							
J.	21.5	16.9	8.9	16.8	9.7	67	67	16.8	9.7	16.8	67							
J.	21.2	16.5	8.8	16.1	8.5	70	70	16.1	8.5	16.1	70							
A.	24.0	13.8	16.2	13.9	15.0	53	53	13.9	15.0	13.9	53							
S.	22.9	15.4	12.8	15.3	13.1	60	60	15.3	13.1	15.3	60							
O.	22.4	17.0	10.3	16.8	12.1	64	64	16.8	12.1	16.8	64							
N.	20.1	18.7	5.0	18.3	7.9	74	74	18.3	7.9	18.3	74							
D.	20.3	18.0	6.1	17.9	6.3	77	77	17.9	6.3	17.9	77							
A.	21.6	17.0	9.1	16.8	9.4	68	68	16.8	9.4	16.8	68							

MOIS	Т	е	Δ	е	Т	Т	е	Δ	е	Т	Т	е	Δ	е	Т	
			06.00													
J.	13.7	14.1	1.6	90	19.3	15.5	6.2	72	22.5	14.5	13.0	54	22.4	14.2	13.5	53
F.	13.8	13.9	2.1	87	18.9	15.5	6.7	71	22.8	15.1	13.1	56	22.7	14.4	13.8	54
M.	15.1	15.3	2.0	88	19.4	16.4	6.3	73	22.7	16.1	11.8	59	22.0	15.5	11.8	61
A.	14.8	15.8	1.2	93	18.9	17.4	4.6	80	21.4	17.5	8.3	69	21.5	17.0	9.0	67
M.	14.8	15.6	1.4	92	18.8	16.9	4.4	78	21.2	16.1	8.7	64	21.2	15.8	9.1	64
A.	14.8	15.1	2.0	89	18.4	15.9	5.5	75	21.0	15.5	9.7	62	21.8	15.3	11.0	59
M.	14.8	15.1	2.1	87	16.9	14.9	4.6	77	20.0	14.3	9.3	39	25.0	10.9	21.0	35
J.	13.8	13.9	2.1	87	19.7	12.7	10.5	55	23.7	11.5	18.0	49	23.5	12.7	16.5	46
J.	14.5	12.3	4.4	74	19.7	13.8	9.3	61	22.9	13.4	14.9	49	23.5	13.5	16.4	47
A.	14.2	13.3	3.1	82	21.1	15.3	10.1	61	24.3	13.8	16.7	46	23.8	15.7	9.6	64
S.	14.7	14.0	2.9	83	19.6	16.6	6.4	73	22.5	16.1	11.3	59	21.0	15.7	10.1	64
O.	14.7	15.3	1.6	91	18.3	16.3	5.0	77	21.1	16.6	8.8	67	21.5	15.8	10.1	63
N.	14.0	14.3	1.8	89												
D.																
A.	14.4	14.4	2.2	87	19.1	15.6	6.6	71	22.2	15.0	12.0	57	22.3	14.6	12.7	56
		18.00														
J.	18.8	14.2	7.6	67	14.3	8.8	8.8	67								
F.	19.7	15.0	8.6	65	14.8	9.2	8.2	66								
M.	19.6	15.8	7.3	71	15.8	8.3	8.3	70								
A.	18.4	16.7	4.7	79	16.9	5.6	5.6	78								
M.	18.0	15.6	5.3	73	15.9	7.5	7.5	74								
A.	19.0	15.0	7.3	68	14.1	7.2	7.2	71								
M.	18.0	13.8	7.9	65	11.7	13.9	13.9	69								
J.	18.6	11.3	14.9	44	13.3	11.4	11.4	49								
J.	21.8	12.8	11.0	57	13.9	11.3	11.3	60								
A.	20.0	14.2	9.1	63	15.9	7.0	7.0	60								
S.	19.8	16.1	3.8	81	15.7	6.3	6.3	73								
O.	17.3	15.6	5.8	75				75								
N.	18.3															
D.																
A.	19.1	14.7	7.8	67	14.8	8.6	8.6	68								

MOIS	T̄	e	Δ	e	T̄	U	Δ	e	T̄	U	Δ	e	T̄	U	Δ	e	T̄	U	
RWERERE-COLLINE																			
		06.00						09.00							12.00			15.00	
J.	12.5	11.4	3.1	79	16.2	13.4	5.2	72	17.4	13.4	6.7	68	17.1	13.2	6.8	68	17.1	13.2	6.8
F.	13.1	11.8	3.9	78	16.2	13.9	4.7	75	18.1	14.0	7.0	68	18.2	14.0	7.4	68	18.2	14.0	7.4
M.	13.3	12.5	2.9	82	16.1	14.5	3.9	79	17.5	15.4	4.7	77	16.9	14.8	4.8	78	16.9	14.8	4.8
A.	12.5	13.5	1.1	93	15.5	15.4	2.4	87	16.8	15.9	3.5	83	16.7	15.5	3.7	82	16.7	15.5	3.7
M.	12.5	13.2	1.0	94	15.4	15.1	2.5	86	16.8	15.3	4.0	80	16.4	15.5	3.4	83	16.4	15.5	3.4
J.	11.6	11.0	0.9	90	14.1	12.8	2.1	88	16.6	15.1	3.9	80	16.9	15.2	4.2	79	16.9	15.2	4.2
J.	11.3	12.0	1.4	90	13.5	13.1	2.5	85	15.8	13.7	4.4	77	15.9	13.8	4.5	77	15.9	13.8	4.5
A.	12.4	11.5	3.0	80	15.4	12.7	5.0	72	18.4	12.9	8.5	61	18.9	12.9	9.1	60	18.9	12.9	9.1
S.	12.2	11.4	3.5	77	16.1	13.0	5.4	72	17.7	13.3	7.1	66	17.7	13.3	7.2	67	17.7	13.3	7.2
O.	13.3	11.5	3.8	76	17.4	13.8	6.3	69	18.4	13.8	7.6	65	17.8	13.6	7.0	68	17.8	13.6	7.0
N.	13.1	12.4	2.6	83	16.8	14.2	4.9	74	17.7	15.1	5.3	74	16.5	14.8	4.2	79	16.5	14.8	4.2
D.	12.9	12.0	2.9	81	15.9	13.3	4.7	75	16.7	14.2	5.2	75	16.7	14.1	5.2	75	16.7	14.1	5.2
A.	12.5	12.0	2.5	84	15.7	13.8	4.1	78	17.3	14.3	5.7	73	17.1	14.2	5.6	74	17.1	14.2	5.6

MOIS	T̄	e	Δ	e	T̄	U	Δ	e	T̄	U	Δ	e	T̄	U	Δ	e	T̄	U
RWERERE-COLLINE																		
		18.00																
J.	14.3	12.5	3.7	75	12.7	5.1	75	12.7	5.1	75								
F.	15.7	13.5	4.9	74	13.3	5.7	72	13.3	5.7	72								
M.	14.8	14.3	2.8	85	14.4	3.8	80	14.4	3.8	80								
A.	14.3	14.5	1.8	89	14.9	2.5	87	14.9	2.5	87								
M.	13.7	14.1	1.7	89	14.5	2.7	86	14.5	2.7	86								
J.	14.1	14.1	2.1	87	14.8	2.7	85	14.8	2.7	85								
J.	13.5	13.1	2.5	85	13.1	3.1	83	13.1	3.1	83								
A.	15.8	12.3	5.7	70	12.4	6.4	68	12.4	6.4	68								
S.	14.3	12.3	4.1	77	12.6	5.5	72	12.6	5.5	72								
O.	14.2	13.1	3.2	81	13.1	5.5	72	13.1	5.5	72								
N.	13.7	13.6	2.1	86	14.1	4.8	80	14.1	4.8	80								
D.	14.2	13.4	2.9	83	13.5	4.1	79	13.5	4.1	79								
A.	14.4	13.4	3.1	82	13.5	4.3	78	13.5	4.3	78								

B. VARIATION MOYENNE HORAIRE DES CARACTERISTIQUES DE L'HUMIDITE DE L'AIR.  
KARAWA-PLATEAU

MOIS	a. TENSION DE VAPEUR D'EAU (e) EN MB.																	
	6	7	8	9	10	11	12	13	14	15	16	17	18	6-18h	18-6h	6-6h		
J.	15.8	16.1	17.2	17.7	17.9	17.8	16.8	16.2	16.5	16.2	16.5	16.8	16.9	16.8	16.8	16.8		
F.	15.8	16.2	17.1	17.8	17.5	17.6	16.5	16.7	15.9	16.5	16.1	16.4	16.5	16.6	16.6	16.6		
M.	17.3	17.6	18.2	18.1	19.5	19.4	18.7	19.0	18.7	18.4	18.4	18.1	18.1	18.4	18.5	18.1		
A.	17.8	18.3	19.0	19.2	19.1	18.8	18.0	18.0	18.0	17.4	17.6	16.5	16.5	15.9	16.5	16.5		
M.	17.3	17.8	18.5	18.7	19.1	17.0	16.7	16.0	16.0	16.0	15.6	15.9	15.9	15.9	15.8	15.9		
J.	16.8	17.0	17.7	17.9	17.1	15.6	16.1	15.2	15.2	12.7	12.7	12.9	12.7	13.3	13.8	13.8		
A.	16.8	17.0	17.7	17.9	17.1	15.6	16.1	15.2	15.2	12.7	12.7	12.9	12.7	13.3	13.8	13.8		
J.	15.6	15.6	16.3	16.3	13.9	13.1	13.7	13.2	12.9	14.5	14.5	14.5	15.0	15.7	15.4	15.4		
J.	14.5	14.7	15.3	15.2	14.5	13.8	15.1	15.0	14.9	16.3	16.3	16.3	18.2	18.4	18.7	18.7		
A.	15.4	15.5	15.8	16.1	16.6	15.8	16.8	18.0	18.0	18.2	18.2	18.2	18.3	18.4	18.7	18.7		
S.	16.6	17.2	17.8	18.1	19.1	19.0	18.3	18.0	18.0	18.0	18.0	17.8	18.3	18.4	18.7	18.7		
O.	17.7	18.2	18.7	19.3	18.9	18.8	18.5	18.2	18.0	18.0	18.0	17.7	18.0	18.4	18.7	18.7		
N.	16.6	17.2	17.9	18.8	18.9	18.8	18.5	18.2	18.0	18.0	18.0	17.7	18.0	18.4	18.7	18.7		
D.	16.4	16.8	17.5	17.8	17.3	17.0	16.8	16.1	16.0	16.3	16.0	16.4	17.0	17.0	17.0	17.0		
A.	16.4	16.8	17.5	17.8	17.3	17.0	16.8	16.1	16.0	16.3	16.0	16.4	17.0	17.0	17.0	17.0		
19	17.4	17.5	17.8	17.5	17.1	16.8	16.6	16.3	16.2	16.1	16.0	16.8	16.8	16.8	16.8	16.8		
J.	17.4	17.5	17.8	17.5	17.1	16.8	16.6	16.3	16.2	16.1	16.0	16.8	16.8	16.8	16.8	16.8		
F.	17.1	16.9	17.2	17.2	18.0	17.8	17.6	17.6	17.5	17.4	17.2	17.3	17.2	17.3	17.5	17.5		
M.	17.5	18.1	18.3	18.3	18.8	18.6	18.4	18.3	18.2	18.1	17.8	18.1	18.5	18.7	18.5	18.6		
M.	18.5	19.0	19.3	19.1	18.1	17.9	17.6	17.5	17.4	17.3	17.2	17.2	17.8	18.1	18.0	18.0		
A.	18.5	19.0	19.3	19.1	18.1	17.9	17.6	17.5	17.4	17.3	17.2	17.2	17.8	18.1	18.0	18.0		
M.	18.2	18.3	18.4	18.2	18.1	17.1	17.1	17.0	16.8	16.0	15.4	15.8	16.1	16.7	17.0	16.9		
M.	18.2	18.3	18.4	18.2	18.1	17.1	17.1	17.0	16.8	16.0	15.4	15.8	16.1	16.7	17.0	16.9		
J.	17.0	17.1	17.4	17.4	16.4	16.4	16.1	16.0	15.7	14.6	14.4	13.5	14.3	14.4	14.3	13.9		
J.	17.0	17.1	17.4	17.4	16.4	16.4	16.1	16.0	15.7	14.6	14.4	13.5	14.3	14.4	14.3	13.9		
J.	16.3	16.4	16.7	16.5	15.2	15.1	14.8	15.6	15.6	15.6	15.3	14.4	15.7	14.4	15.7	15.1		
J.	16.3	16.4	16.7	16.5	15.2	15.1	14.8	15.6	15.6	15.6	15.3	14.4	15.7	14.4	15.7	15.1		
A.	15.1	15.5	16.2	16.1	16.0	15.8	15.7	16.7	16.6	16.6	16.3	16.3	17.5	16.3	17.5	16.3		
A.	15.1	15.5	16.2	16.1	16.0	15.8	15.7	16.7	16.6	16.6	16.3	16.3	17.5	16.3	17.5	16.3		
S.	15.1	15.5	16.2	16.1	16.0	15.8	15.7	16.7	16.6	16.6	16.3	16.3	17.5	16.3	17.5	16.3		
O.	17.2	17.7	18.1	18.3	18.2	18.0	17.9	17.7	17.6	16.4	16.4	18.1	18.5	18.5	18.1	17.1		
O.	17.2	17.7	18.1	18.3	18.2	18.0	17.9	17.7	17.6	16.4	16.4	18.1	18.5	18.5	18.1	17.1		
N.	18.5	18.4	17.7	17.6	17.4	17.2	17.0	16.7	16.6	16.4	16.4	18.1	18.5	18.5	18.1	17.1		
N.	18.5	18.4	17.7	17.6	17.4	17.2	17.0	16.7	16.6	16.4	16.4	18.1	18.5	18.5	18.1	17.1		
D.	17.5	17.6	17.7	17.6	17.4	17.2	17.0	16.7	16.6	16.4	16.4	18.1	18.5	18.5	18.1	17.1		
D.	17.5	17.6	17.7	17.6	17.4	17.2	17.0	16.7	16.6	16.4	16.4	18.1	18.5	18.5	18.1	17.1		
A.	17.0	17.2	17.5	17.4	17.2	17.0	16.8	16.7	16.6	16.4	16.3	16.7	16.9	16.7	16.9	16.8		

b. HUMIDITY RELATIVE (U) EN %.

MOIS	6	7	8	9	10	11	12	13	14	15	16	17	18
J.	94	92	86	77	69	63	57	54	53	55	58	61	67
F.	93	92	86	78	71	62	54	51	51	52	56	59	64
M.	93	90	83	72	65	59	54	54	54	55	54	59	66
A.	95	93	87	80	75	70	68	67	65	65	67	70	76
M.	95	93	87	79	73	67	61	60	60	60	63	69	75
J.	92	89	82	73	63	58	54	51	51	51	52	57	67
J.	90	87	82	76	67	60	60	55	54	54	54	59	67
A.	84	81	72	58	48	42	40	35	33	35	34	39	47
S.	89	82	71	60	50	44	46	40	38	43	40	44	57
O.	91	86	76	66	55	48	49	45	44	50	48	52	64
N.	96	91	85	78	71	66	59	59	61	69	70	74	80
D.	96	94	90	87	81	75	68	64	66	66	65	67	76
A.	92	89	82	74	66	59	56	53	52	55	51	59	67
J.	75	78	81	83	84	86	88	91	92	94	95	67	85
F.	72	74	77	80	82	84	86	89	89	91	92	66	83
M.	71	76	80	81	83	84	85	87	90	91	91	65	83
A.	81	86	88	90	91	91	92	93	94	95	95	74	90
M.	80	83	84	87	88	84	86	87	89	94	94	71	89
J.	72	75	79	82	82	84	86	87	93	94	94	63	83
J.	71	74	77	79	80	82	83	85	89	90	91	65	81
A.	52	57	63	67	70	72	73	76	86	87	88	48	69
S.	60	64	69	71	74	75	77	79	80	80	81	53	75
O.	69	73	76	77	78	79	81	84	83	85	87	58	64
N.	82	83	84.5	87	89	90	91	91	89	89	89	58	80
D.	79	82	84	86	88	91	92	92	94	94	95	73	89
A.	72	75	78	81	82	84	85	87	89	90	91	65	83
J.	75	78	81	83	84	86	88	91	92	94	95	67	85
F.	72	74	77	80	82	84	86	89	89	91	92	66	83
M.	71	76	80	81	83	84	85	87	90	91	91	65	83
A.	81	86	88	90	91	91	92	93	94	95	95	74	90
M.	80	83	84	87	88	84	86	87	89	94	94	71	89
J.	72	75	79	82	82	84	86	87	93	94	94	63	83
J.	71	74	77	79	80	82	83	85	89	90	91	65	81
A.	52	57	63	67	70	72	73	76	86	87	88	48	69
S.	60	64	69	71	74	75	77	79	80	80	81	53	75
O.	69	73	76	77	78	79	81	84	83	85	87	58	64
N.	82	83	84.5	87	89	90	91	91	89	89	89	58	80
D.	79	82	84	86	88	91	92	92	94	94	95	73	89
A.	72	75	78	81	82	84	85	87	89	90	91	65	83
J.	75	78	81	83	84	86	88	91	92	94	95	67	85
F.	72	74	77	80	82	84	86	89	89	91	92	66	83
M.	71	76	80	81	83	84	85	87	90	91	91	65	83
A.	81	86	88	90	91	91	92	93	94	95	95	74	90
M.	80	83	84	87	88	84	86	87	89	94	94	71	89
J.	72	75	79	82	82	84	86	87	93	94	94	63	83
J.	71	74	77	79	80	82	83	85	89	90	91	65	81
A.	52	57	63	67	70	72	73	76	86	87	88	48	69
S.	60	64	69	71	74	75	77	79	80	80	81	53	75
O.	69	73	76	77	78	79	81	84	83	85	87	58	64
N.	82	83	84.5	87	89	90	91	91	89	89	89	58	80
D.	79	82	84	86	88	91	92	92	94	94	95	73	89
A.	72	75	78	81	82	84	85	87	89	90	91	65	83

C. DEFICIT DE SATURATION (Δe) EN MB.

MOIS	6	7	8	9	10	11	12	13	14	15	16	17	18	
J.	1.0	1.4	2.8	5.7	8.4	11.1	14.3	15.7	15.6	14.4	12.9	11.5	8.7	
F.	1.2	1.5	3.0	5.3	7.9	11.7	15.3	17.1	17.1	16.6	14.7	13.0	10.4	
M.	1.4	2.0	4.0	7.6	10.3	13.2	15.8	16.1	16.4	17.4	16.3	13.3	10.0	
M.	0.9	1.4	3.0	5.3	6.9	8.6	9.5	10.1	10.9	11.0	10.0	8.5	6.1	
A.	0.9	1.5	2.9	5.2	7.5	9.6	11.9	12.7	12.7	12.7	15.4	12.9	8.9	
M.	1.5	2.1	3.8	7.0	10.3	12.3	14.3	15.6	17.0	16.3	14.0	12.0	8.8	
J.	1.8	2.4	3.7	7.7	10.7	11.0	11.7	13.4	14.0	14.2	24.2	21.2	16.2	
J.	1.8	3.4	6.0	10.9	15.1	18.6	20.5	23.7	25.1	24.2	24.2	18.6	12.8	
A.	2.8	3.4	6.7	11.2	15.8	18.9	18.9	20.2	20.8	21.3	21.9	15.9	10.3	
S.	1.5	2.7	5.7	9.7	14.2	17.4	18.2	12.6	12.2	18.3	18.1	7.1	5.0	
O.	0.8	1.7	3.5	5.8	8.1	10.3	12.9	11.1	10.3	9.3	8.6	9.4	6.1	
N.	0.7	1.1	1.9	3.0	4.8	7.1	9.3	11.1	10.3	10.3	10.4	9.4	9.1	
D.	1.3	2.0	3.9	6.9	9.8	12.5	14.4	15.9	15.4	15.5	14.8	12.7	9.1	
A.	19	20	21	22	23	24	1	2	3	4	5	6-18h	18-6h	6-6h
J.	6.1	5.2	4.4	3.8	3.3	2.9	2.3	1.8	1.5	1.2	1.0	9.8	3.2	6.5
F.	7.3	6.4	5.3	4.4	3.8	3.5	2.8	2.3	2.0	1.7	1.5	10.7	3.9	7.3
M.	7.7	6.1	4.9	4.5	3.9	3.5	3.1	2.6	2.1	1.8	1.7	11.4	2.2	7.7
M.	4.5	3.3	2.7	2.9	2.5	1.8	1.6	1.4	1.1	1.0	1.0	7.4	2.5	4.8
A.	4.5	3.9	3.5	4.0	3.8	2.0	1.9	1.6	1.4	1.2	1.1	8.4	3.7	5.5
M.	4.4	5.8	4.8	4.6	4.2	3.6	3.3	2.8	2.5	2.3	2.1	9.7	4.1	7.3
J.	6.9	5.8	5.1	4.6	4.2	5.9	5.4	4.7	4.2	3.5	3.3	11.0	6.9	11.9
J.	7.0	10.8	8.9	7.5	6.6	5.9	4.7	4.1	3.3	2.7	2.0	13.9	5.9	10.9
J.	13.6	9.3	7.6	6.7	5.8	5.4	3.9	3.3	2.7	2.0	0.9	7.9	4.6	9.3
A.	10.7	6.9	5.8	5.4	5.0	4.5	3.9	3.3	2.7	1.2	1.0	6.8	2.3	5.1
S.	8.3	3.7	3.3	2.7	2.3	2.1	1.8	1.7	1.4	1.1	0.9	7.9	2.5	4.7
O.	4.2	4.0	3.3	2.9	2.4	1.9	1.6	1.5	1.2	1.1	1.0	6.8	2.5	4.7
N.	4.9	4.0	3.6	2.9	2.4	1.9	1.6	1.5	1.2	1.1	1.0	6.8	2.5	4.7
D.	7.1	5.9	5.0	4.3	3.8	3.3	2.9	2.4	2.1	1.8	1.6	10.8	3.8	7.3
A.	7.1	5.9	5.0	4.3	3.8	3.3	2.9	2.4	2.1	1.8	1.6	10.8	3.8	7.3





b. HUMIDITY RELATIVE (U) EN %.

MOIS	6	7	8	9	10	11	12	13	14	15	16	17	18	6-18h	18-6h	6-6h
J. F. F.	90	85	81	72	65	59	54	51	51	53	56	61	67			
W. M. A.	87	83	79	71	65	58	56	52	50	54	59	60	65			
M. W. M.	88	85	81	73	67	62	59	58	59	61	63	65	71			
J. J. J.	92	89	86	80	74	70	69	68	67	67	69	73	79			
J. A. A.	89	86	82	75	71	68	64	64	63	64	60	64	68			
S. O. O.	87	85	81	77	70	66	62	60	59	59	58	61	65			
N. M. D.	74	70	65	55	46	44	39	36	35	35	36	38	44			
A. A. A.	82	77	71	61	54	49	46	45	43	46	45	51	57			
O. N. D.	83	77	69	61	54	49	46	45	43	47	49	55	63			
M. N. D.	91	86	80	73	68	64	59	57	58	64	68	75	81			
N. M. D.	89	86	82	77	72	69	67	64	61	63	64	68	75			
A. A. A.	87	83	78	71	65	60	57	55	54	56	58	62	67			
J. F. F.	19	20	21	22	23	24	1	2	3	4	5	66	81			73
W. M. A.	72	74	76	77	80	82	84	86	86	87	87	87	88			69
M. W. M.	71	73	74	75	77	78	80	82	83	85	84	84	88			75
J. J. J.	75	77	78	80	82	84	84	86	87	87	88	88	88			81
J. A. A.	82	84	86	87	89	88	90	91	92	92	91	93	91			79
S. O. O.	77	79	83	84	85	86	87	89	90	86	87	87	86			74
N. M. D.	72	75	78	80	81	82	82	84	85	84	85	85	87			72
A. A. A.	72	75	76	74	76	77	79	80	82	84	85	82	81			53
O. N. D.	67	69	73	74	76	77	76	78	79	79	71	70	73			63
M. N. D.	47	50	53	55	58	60	63	65	67	69	71	71	75			65
N. M. D.	61	63	67	69	72	73	77	79	81	82	82	82	88			79
A. A. A.	65	67	70	72	74	76	77	79	81	80	81	81	88			65
M. N. D.	84	84	86	87	88	89	89	90	90	90	89	91	83			77
N. M. D.	84	84	86	87	88	89	86	87	88	88	89	89	83			77
A. A. A.	76	78	79	80	81	84	81	83	84	85	86	64	79			71

C. DEFICIT DE SATURATION (Δe) EN MB.

MOIS	6	7	8	9	10	11	12	13	14	15	16	17	18
J.	1.6	2.3	3.3	6.2	8.3	10.7	13.0	14.3	14.2	13.5	11.5	9.5	7.6
F.	2.1	2.6	4.0	6.7	9.3	11.6	13.1	14.3	15.2	13.8	13.0	10.9	8.6
M.	2.0	2.6	3.7	6.3	8.3	10.5	11.8	12.4	12.2	11.8	10.8	9.6	7.3
A.	1.2	1.5	2.8	4.6	6.2	7.7	8.3	8.7	9.1	9.0	8.0	6.6	4.7
M.	1.4	2.0	3.2	4.4	7.0	8.1	8.7	9.5	9.9	9.1	8.8	7.4	5.3
J.	2.0	2.5	3.5	5.5	7.4	8.8	9.7	10.5	11.0	11.0	10.9	9.2	7.3
J.	2.1	2.4	3.2	4.6	6.9	8.3	9.3	10.2	10.5	11.2	10.9	9.5	7.9
A.	4.4	6.1	6.7	10.5	14.1	16.8	18.0	19.9	21.0	21.0	20.4	18.6	14.9
S.	3.1	3.9	5.8	9.3	11.3	13.1	14.9	15.4	16.3	16.5	16.4	13.9	11.0
O.	2.9	4.2	6.5	10.1	12.9	14.9	16.7	17.2	18.0	16.4	15.1	12.3	9.1
N.	1.6	2.5	4.1	6.4	8.0	9.7	11.3	12.3	12.1	9.6	8.2	5.7	3.8
D.	1.8	2.3	3.3	5.0	6.8	8.0	8.8	9.7	10.6	10.1	9.3	7.8	5.8
A.	2.2	2.9	4.2	6.6	8.9	10.7	12.0	12.9	13.3	12.7	12.7	10.1	7.8

	19	20	21	22	23	24	1	2	3	4	5	6-18h	18-6h	6-6h
J.	6.1	5.4	5.2	4.5	4.1	3.2	2.7	2.4	2.2	2.1	2.1	9.1	3.7	6.4
F.	6.7	6.1	5.4	5.2	4.9	4.3	3.7	3.2	2.8	2.5	2.4	9.9	4.3	7.1
M.	6.0	5.2	4.9	4.4	3.9	3.2	3.1	2.6	2.3	2.2	2.0	8.8	3.8	6.3
A.	3.7	3.3	2.9	2.5	2.2	2.2	1.8	1.6	1.5	1.3	1.3	6.3	2.3	4.3
M.	4.5	4.0	3.4	3.3	2.8	2.5	2.3	2.0	1.8	1.6	1.6	6.9	2.8	4.9
J.	6.1	5.4	4.0	4.0	3.8	3.5	3.3	2.9	2.6	2.4	2.1	7.9	2.8	4.9
J.	7.1	6.3	5.5	5.2	4.6	4.3	3.8	3.6	3.0	2.7	2.4	7.6	3.8	5.9
A.	13.1	12.2	10.9	10.0	8.9	8.1	7.3	6.7	5.9	5.4	5.0	4.5	4.5	6.1
S.	9.5	8.8	7.7	6.6	6.0	5.4	4.6	4.1	3.6	3.4	3.1	15.2	8.6	11.9
O.	8.2	7.4	6.7	5.9	5.3	4.7	4.3	3.7	3.3	3.1	3.1	12.0	5.9	8.9
N.	3.3	3.0	2.6	2.5	2.2	2.0	2.0	1.7	1.7	1.7	1.6	12.5	5.1	8.8
D.	5.2	4.5	4.3	4.0	3.8	2.9	2.6	2.4	2.1	2.1	1.7	7.7	2.2	4.9
A.	6.6	6.0	5.3	4.8	4.4	3.9	3.5	3.1	2.7	2.5	2.4	7.1	3.3	5.2

RIVERBERG - COLLINE

a. TENSION DE VAPEUR D'EAU (°) EN MB

MOIS	6	7	8	9	10	11	12	13	14	15	16	17	18	
J.	11.4	11.4	12.1	13.4	12.9	12.9	13.4	12.7	12.6	13.2	12.7	12.5	12.5	
F.	11.8	11.8	12.6	13.9	13.7	13.5	14.0	13.6	13.6	14.0	13.1	13.1	13.5	
M.	12.5	12.1	13.1	14.5	15.4	15.5	15.9	15.5	15.4	15.5	14.9	14.6	14.5	
A.	13.5	13.4	14.5	15.4	14.9	14.9	15.3	15.1	15.3	15.0	14.8	14.3	14.1	
M.	13.2	13.3	14.2	15.1	14.5	14.6	15.1	14.6	14.6	13.8	14.4	14.3	14.1	
J.	11.0	12.7	13.2	12.8	14.5	13.0	13.7	13.3	13.4	12.9	13.4	12.2	13.1	
J.	12.0	11.9	12.3	13.1	13.0	12.2	12.9	12.3	12.4	13.3	12.6	12.7	12.3	
J.	11.5	11.2	11.8	12.7	12.9	12.8	13.3	12.9	13.2	13.6	12.8	13.1	13.1	
A.	11.4	11.5	12.2	13.0	12.9	13.3	13.8	13.3	14.3	14.8	13.9	13.8	13.6	
S.	11.5	11.9	12.7	13.8	14.5	14.5	15.1	14.4	14.3	14.1	13.6	13.6	13.4	
O.	12.4	12.7	13.3	14.2	13.3	13.3	14.2	13.3	13.4	14.1	13.6	13.6	13.4	
N.	12.0	12.1	12.8	13.3	13.3	13.3	14.2	13.3	13.4	14.1	13.6	13.6	13.4	
D.														
A.	12.0	12.2	12.9	13.8	13.7	13.7	14.3	13.8	13.8	14.2	13.6	13.5	13.4	
	19	20	21	22	23	24	1	2	3	4	5	6-18h	18-6h	6-6h
J.	12.3	12.3	12.2	12.2	12.2	12.2	12.0	11.8	11.7	11.5	11.3	12.5	11.9	12.2
F.	12.2	12.2	13.0	12.8	11.9	11.9	11.9	11.9	11.7	11.7	11.5	13.3	11.9	12.6
M.	13.4	13.3	13.9	13.9	13.8	13.6	13.6	13.5	13.5	13.4	13.3	14.7	13.7	14.3
A.	14.1	14.0	13.9	13.8	13.7	13.6	13.6	13.6	13.5	13.5	12.9	14.4	13.4	14.2
M.	13.8	13.9	13.7	13.8	13.5	13.5	13.4	13.3	13.3	13.1	11.9	13.1	12.3	12.7
J.	13.7	13.8	13.7	13.7	12.3	12.1	12.2	12.1	12.1	11.3	11.3	12.3	11.6	11.9
J.	12.7	12.5	12.5	12.5	11.6	11.6	11.6	11.6	11.5	11.3	11.3	12.7	11.7	12.2
J.	11.7	11.6	11.7	11.7	11.6	11.6	11.6	11.6	11.4	11.3	11.3	13.1	12.1	12.6
A.	12.0	11.7	12.0	12.0	11.8	11.7	12.0	11.5	11.4	11.5	11.4	14.1	12.9	13.5
S.	12.0	12.7	12.5	12.3	12.2	12.0	13.0	12.8	12.7	12.6	12.4	13.3	12.9	13.5
O.	12.7	13.3	13.3	13.2	13.1	13.1	12.3	12.1	12.0	11.9	11.8	13.3	12.3	12.8
N.	13.3	12.5	12.5	12.5	12.4	12.3	12.3	12.1	12.0	11.9	11.8	13.3	12.3	12.8
D.	12.6	12.5	12.5	12.5	12.4	12.3	12.3	12.1	12.0	11.9	11.8	13.3	12.3	12.8
A.	12.9	12.8	12.8	12.7	12.6	12.5	12.4	12.4	12.3	12.2	12.1	13.5	12.5	13.0

b. HUMIDITY RELATIVE (U) EN %.

MOIS	6	7	8	9	10	11	12	13	14	15	16	17	18	6-18h	18-6h	6-6h
J.	79	76	72	72	65	63	68	61	61	68	67	70	75	68	80	74
F.	78	76	75	75	70	66	68	66	66	68	67	70	74	70	75	72
M.	82	78	78	79	74	74	77	71	73	78	77	69	69	70	81	79
A.	93	88	87	87	82	80	83	79	79	82	81	83	85	83	89	86
M.	94	91	88	86	80	78	80	79	79	83	83	87	89	89	89	87
J.	90	85	82	88	82	79	80	79	76	79	78	82	89	90	87	85
J.	90	87	85	85	80	77	77	75	74	77	77	82	87	91	87	85
A.	80	74	74	72	65	61	61	58	58	60	59	62	70	89	74	69
S.	77	75	73	72	65	64	66	65	65	67	66	62	70	89	77	70
O.	76	69	70	72	65	64	66	65	65	67	66	72	77	89	77	77
N.	83	74	76	69	63	63	65	63	63	68	69	75	81	91	81	86
D.	81	75	76	74	71	70	74	73	74	79	78	83	86	82	78	81
A.	84	80	78	78	72	70	73	70	70	74	73	76	82	75	82	78
J.	78	80	81	81	82	82	81	80	79	78	77	68	80	68	80	74
F.	73	74	74	75	75	75	75	75	75	75	75	70	75	70	75	72
M.	82	83	82	82	81	80	80	79	79	80	79	77	81	77	81	79
A.	88	88	88	88	88	89	88	88	89	88	89	83	89	83	89	86
M.	90	91	90	90	90	91	90	90	90	90	90	84	91	84	91	87
J.	88	89	89	89	89	90	91	93	93	93	93	84	90	91	90	86
J.	85	87	86	87	87	87	88	88	89	89	89	82	90	82	87	86
A.	69	74	71	73	74	75	76	77	77	78	78	80	87	80	83	83
S.	77	80	80	80	80	78	77	77	76	76	76	65	74	65	74	69
O.	81	81	80	79	79	78	78	77	76	76	76	69	77	69	74	73
N.	87	87	87	87	87	87	87	86	85	85	84	68	78	68	78	73
D.	82	83	82	84	83	83	83	82	81	80	79	76	86	76	86	81
A.	82	82	82	83	83	83	83	83	83	82	82	74	82	74	82	78

C. DEFICIT DEF SATURATION (e) EN MB.

MOIS	6	7	8	9	10	11	12	13	14	15	16	17	18	
J.	3.1	3.7	4.8	5.2	6.4	6.9	6.7	7.7	7.7	6.8	6.8	5.8	3.7	
F.	3.9	3.7	4.4	4.7	6.2	7.4	7.0	7.7	7.8	7.4	7.5	6.6	4.9	
M.	2.9	3.6	3.8	3.9	5.1	5.3	4.7	6.1	5.8	4.8	4.8	4.2	2.8	
A.	1.1	1.9	2.1	2.4	3.6	4.1	3.5	4.3	4.3	3.7	3.8	3.2	1.8	
M.	1.0	1.4	2.0	2.5	3.7	4.3	4.0	4.2	4.2	4.2	4.1	2.3	1.7	
J.	0.9	1.3	1.8	2.1	3.3	3.9	3.9	4.8	5.0	4.5	4.3	3.5	2.5	
J.	1.4	1.8	2.2	2.5	6.8	7.9	8.5	9.2	9.2	9.1	8.5	7.8	5.7	
A.	3.0	3.5	4.2	5.0	7.0	7.6	7.1	7.5	7.4	7.0	7.1	5.5	4.1	
S.	3.5	3.9	4.6	5.4	6.8	7.9	7.6	9.2	9.2	8.2	8.5	7.8	3.2	
O.	3.8	3.5	4.2	6.3	5.0	5.0	5.3	5.5	5.3	4.2	4.1	2.9	2.1	
N.	2.6	3.5	4.2	4.9	5.8	5.9	5.3	6.1	6.1	5.2	5.3	4.3	2.9	
D.	2.9	3.5	4.1	4.7	5.8	5.9	5.2	6.1	6.1	5.2	5.3	4.3	2.9	
A.	2.5	2.9	3.5	4.1	5.3	5.9	5.7	6.4	6.4	5.6	5.7	4.8	3.1	
	19	20	21	22	23	24	1	2	3	4	5	6-18h	18-6h	6-6h
J.	3.4	3.1	2.9	2.8	2.7	2.7	2.8	2.9	3.2	3.3	3.4	5.9	3.1	4.5
F.	4.7	4.3	4.4	4.1	4.0	3.9	3.9	3.9	4.0	3.9	3.9	6.2	4.0	5.1
M.	3.2	2.8	2.9	2.7	2.9	3.2	3.3	3.3	3.3	3.1	3.3	4.6	3.1	3.9
A.	1.9	1.9	1.9	1.9	1.8	1.7	1.6	1.6	1.5	1.5	1.5	3.2	1.7	2.5
M.	1.6	1.4	1.5	1.5	1.5	1.4	1.3	1.1	1.1	1.1	1.0	3.1	1.3	2.2
A.	1.9	1.8	1.8	1.7	1.7	1.6	1.4	1.3	1.2	1.2	1.2	3.2	1.5	2.3
J.	2.4	2.3	2.2	2.0	2.0	1.9	1.7	1.7	1.6	1.5	1.5	7.0	1.9	2.7
J.	5.4	5.2	5.1	4.5	4.2	4.0	3.7	3.6	3.5	3.3	3.2	6.2	4.2	5.6
A.	3.8	4.1	3.7	3.2	3.0	3.3	3.9	3.9	3.7	3.5	3.6	7.0	3.6	4.9
S.	5.4	5.2	5.1	4.5	4.2	4.0	3.7	3.6	3.5	3.3	3.2	6.2	4.2	5.6
O.	5.4	5.2	5.1	4.5	4.2	4.0	3.7	3.6	3.5	3.3	3.2	7.0	4.2	4.9
N.	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.1	2.2	2.3	2.4	4.5	2.1	3.3
D.	2.9	2.6	2.7	2.5	2.5	2.6	2.5	2.7	2.9	2.9	3.1	4.9	2.7	3.8
A.	3.2	3.0	3.0	2.8	2.7	2.7	2.6	2.6	2.6	2.6	2.6	4.9	2.8	3.9

THE GREAT EASTERN...

1	...	...	...
2	...	...	...
3	...	...	...
4	...	...	...
5	...	...	...
6	...	...	...
7	...	...	...
8	...	...	...
9	...	...	...
10	...	...	...
11	...	...	...
12	...	...	...
13	...	...	...
14	...	...	...
15	...	...	...
16	...	...	...
17	...	...	...
18	...	...	...
19	...	...	...
20	...	...	...
21	...	...	...
22	...	...	...
23	...	...	...
24	...	...	...
25	...	...	...
26	...	...	...
27	...	...	...
28	...	...	...
29	...	...	...
30	...	...	...
31	...	...	...
32	...	...	...
33	...	...	...
34	...	...	...
35	...	...	...
36	...	...	...
37	...	...	...
38	...	...	...
39	...	...	...
40	...	...	...
41	...	...	...
42	...	...	...
43	...	...	...
44	...	...	...
45	...	...	...
46	...	...	...
47	...	...	...
48	...	...	...
49	...	...	...
50	...	...	...

VI.- L'INSOLATION.

(EN DIXIEMES D'HEURE)

A. INSOLATION MENSUELLE OU ANNUELLE EFFECTIVE ET RELATIVE

Lettres conventionnelles

- I. = insolation mensuelle ou annuelle effective
- (I)N = moyenne de référence calculée sur le plus grand nombre d'années au cours de la période 1951-1970.
- I-(I)N = écart de I à la normale (normale = moyenne de référence calculée sur le grand nombre d'années au cours de la période 1951-1970).
- Ir = insolation mensuelle ou annuelle relative en pour cent (pourcentage de l'insolation mensuelle ou annuelle effective à l'insolation mensuelle ou annuelle astronomiquement possible).
- (Ir)N = moyenne de référence de l'insolation mensuelle ou annuelle relative en pour cent.
- Ir-(Ir)N = écart de Ir à la normale (normale = moyenne de référence...).

B. VARIATION HORAIRE MENSUELLE OU ANNUELLE (DE 07.00 A 17.00H) EN POUR CENT DE LA DUREE D'INSOLATION.



1871  
1872  
1873  
1874  
1875  
1876  
1877  
1878  
1879  
1880  
1881  
1882  
1883  
1884  
1885  
1886  
1887  
1888  
1889  
1890  
1891  
1892  
1893  
1894  
1895  
1896  
1897  
1898  
1899  
1900

A.- INSOLATION MENSUELLE OU ANNUELLE EFFECTIVE EN RELATIVE.

MOIS	I	(I)N	I-(I)N	Ir	(Ir)N	Ir-(Ir)N	I	(I)N	I-(I)N	Ir	(Ir)N	Ir-(Ir)N
	GISAKURA											
J.	1641	-	-	43.3	-	-	1884	1804	+ 80	49.7	47.6	+ 2.1
F.	1664	-	-	48.8	-	-	1763	1629	+ 134	51.7	47.4	+ 4.3
M.	1066	-	-	28.3	-	-	1699	1586	+ 113	45.2	42.2	+ 3.0
A.	928	-	-	25.6	-	-	1483	1567	- 84	41.0	43.3	- 2.3
M.	769	-	-	20.7	-	-	1757	1925	- 168	47.2	51.7	- 4.5
J.	1099	-	-	30.6	-	-	1830	2357	- 527	51.0	65.7	- 14.7
J.	1093	-	-	29.4	-	-	1592	2536	- 944	42.8	68.2	- 25.4
A.	2376	-	-	63.7	-	-	2622	2361	+ 261	70.3	63.3	+ 7.0
S.	1347	-	-	37.1	-	-	2118	2106	+ 12	58.3	58.0	+ 0.3
O.	1323	-	-	35.1	-	-	2183	1819	+ 364	57.9	48.2	+ 9.7
N.	820	-	-	22.3	-	-	1640	1471	+ 169	44.7	40.1	+ 4.6
D.	1200	-	-	31.6	-	-	1385	1708	- 323	36.4	45.0	- 8.6
A.	15326	-	-	34.7	-	-	21956	22869	- 913	49.7	51.7	- 2.0
	MATTA (5)											
J.	1715	1469	+	246	45.3	38.8	2060	1776	+ 284	54.3	46.9	+ 7.4
F.	1625	1257	+	368	47.7	36.5	1900	1562	+ 338	55.7	45.4	+ 10.3
M.	1365	1321	-	57	33.6	35.1	1534	1693	- 159	40.8	45.0	- 4.3
A.	1174	1241	-	67	32.4	34.3	1490	1566	- 76	41.2	43.3	- 2.1
M.	974	1312	-	338	26.2	35.3	1558	1718	- 160	41.9	46.2	- 4.3
J.	1181	1655	-	474	32.9	46.1	1514	2110	- 596	42.2	58.8	- 16.6
J.	1050	2040	-	990	28.2	54.8	1395	2322	- 927	37.5	62.4	- 24.9
A.	2145	1986	+	159	57.5	53.3	2652	2164	+ 488	71.1	58.0	+ 13.1
S.	1793	1783	+	10	49.4	49.1	2016	1877	+ 139	55.5	51.7	+ 3.8
O.	1485	1769	-	284	39.4	46.9	2092	1790	+ 302	55.5	47.5	+ 8.0
N.	1145	1210	-	65	31.2	33.0	1589	1526	+ 63	43.1	41.6	+ 1.5
D.	1258	1548	-	290	33.1	40.7	1651	1713	- 62	43.4	45.1	- 1.7
A.	16810	18591	-	1781	38.0	42.2	24451	21817	- 366	48.5	49.3	- 0.8

RUBONA (16)

KARAMA-PLATEAU (9)

MOIS I (I)N I-(I)N Ir (Ir)N Ir-(Ir)N

RWERERE-COLLINE (13)

MOIS	I	(I)N	I-(I)N	Ir	(Ir)N	Ir-(Ir)N
J.	2032	1582	+	450	53.7	+ 11.9
F.	1702	1314	+	388	49.9	+ 11.6
M.	1143	1355	-	212	30.4	- 5.6
A.	1198	1226	-	28	33.1	- 0.8
M.	1064	1338	-	274	28.5	- 7.4
J.	1088	1798	-	710	30.1	- 19.7
J.	1044	1973	-	929	28.0	- 24.9
A.	2058	1652	+	406	55.0	+ 10.8
S.	1458	1440	+	18	40.2	+ 0.5
O.	1790	1447	+	343	47.5	+ 9.1
N.	1110	1242	-	132	30.3	- 3.6
D.	1419	1485	-	66	37.4	- 1.8
A.	17106	17852	-	746	38.7	- 1.7

(C) ATAK

MOIS	I	(I)N	I-(I)N	Ir	(Ir)N	Ir-(Ir)N
A.	...	...	...	...	...	...
F.	...	...	...	...	...	...
M.	...	...	...	...	...	...
A.	...	...	...	...	...	...
M.	...	...	...	...	...	...
J.	...	...	...	...	...	...
J.	...	...	...	...	...	...
A.	...	...	...	...	...	...
S.	...	...	...	...	...	...
O.	...	...	...	...	...	...
N.	...	...	...	...	...	...
D.	...	...	...	...	...	...
A.	...	...	...	...	...	...

B. VARIATION HORAIRE MENSUELLE ET ANNUELLE (de 7 à 17h) EN % DE LA DURÉE D'INSOLATION.

Heures positives

Intervalles

MOIS	Heures antéméridiennes												
	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	7-12	7-17	12-17
J.	63.3	72.0	74.0	61.4	52.6	46.8	34.6	31.7	35.9	21.0	64.6	49.3	33.9
F.	70.3	79.6	71.7	62.1	50.3	41.8	46.4	45.3	35.3	34.3	66.8	53.7	40.6
M.	38.8	55.9	57.8	43.6	38.4	26.2	18.1	15.5	21.0	17.1	46.8	33.1	19.5
A.	42.3	49.9	38.0	22.0	24.0	21.3	24.0	26.3	25.6	19.0	29.1	23.5	23.3
M.	32.6	42.6	35.5	17.1	17.8	34.8	17.4	16.8	17.8	17.1	33.8	35.9	37.9
W.	30.7	50.0	43.8	19.7	24.8	34.8	34.1	41.7	41.0	37.6	34.7	33.8	32.9
J.	38.8	40.7	32.9	30.4	31.0	37.8	25.8	31.3	38.8	31.0	82.3	73.7	65.1
J.	72.3	91.7	89.5	87.2	71.4	34.0	68.1	67.5	65.2	56.8	56.1	42.8	29.5
A.	47.6	64.3	66.3	58.9	42.9	21.3	26.8	33.3	18.1	12.6	58.1	40.2	22.3
S.	63.3	69.8	74.3	51.7	31.7	23.3	22.6	28.0	19.0	6.7	32.4	26.1	19.9
O.	20.3	36.6	41.6	39.6	23.6	27.8	32.6	49.7	65.2	52.0	26.0	35.4	41.8
N.	18.7	31.3	32.6	24.5	22.9	33.7	32.2	35.2	34.0	26.8	47.2	39.7	32.3
D.	44.9	57.0	54.8	43.2	35.9	33.7	32.2	35.2	34.0	26.8	47.2	39.7	32.3
A.	44.9	57.0	54.8	43.2	35.9	33.7	32.2	35.2	34.0	26.8	47.2	39.7	32.3
KARAMA-PLATEAU													
J.	39.1	54.6	62.7	68.1	68.8	66.9	66.2	51.0	51.3	39.1	58.6	56.7	54.8
F.	49.3	52.1	66.0	67.4	66.0	66.0	57.1	57.5	59.6	50.0	60.2	59.1	58.0
M.	39.7	48.8	51.3	64.6	71.1	59.1	53.9	56.5	51.0	33.6	55.0	52.9	50.8
A.	36.0	46.3	51.7	53.3	45.7	49.7	47.7	50.7	46.7	42.7	46.6	47.1	47.5
M.	29.4	42.3	62.0	63.6	70.4	64.3	63.0	63.7	56.0	43.7	59.1	54.3	55.0
J.	40.7	53.0	63.3	68.3	70.0	47.1	47.5	58.1	45.5	40.0	85.8	49.6	47.6
J.	38.4	48.8	59.1	58.1	53.9	83.7	87.9	81.7	73.3	64.9	75.1	58.7	58.2
A.	70.7	86.2	86.9	90.8	93.0	74.3	69.7	58.7	61.0	55.9	72.3	66.7	62.1
S.	61.0	78.3	77.3	82.3	76.3	63.6	70.4	68.1	53.0	30.7	56.3	52.4	48.5
O.	54.6	72.7	78.8	74.3	76.9	71.7	57.7	47.0	35.7	44.9	33.6	41.5	49.3
N.	35.3	52.7	54.3	66.0	73.0	58.1	43.9	41.7	58.1	44.9	33.6	41.5	49.3
D.	16.1	21.0	34.2	44.6	52.3	64.5	60.4	57.6	53.1	44.2	58.9	57.4	55.9
A.	42.5	54.9	62.3	66.8	68.1	64.5	60.4	57.6	53.1	44.2	58.9	57.4	55.9

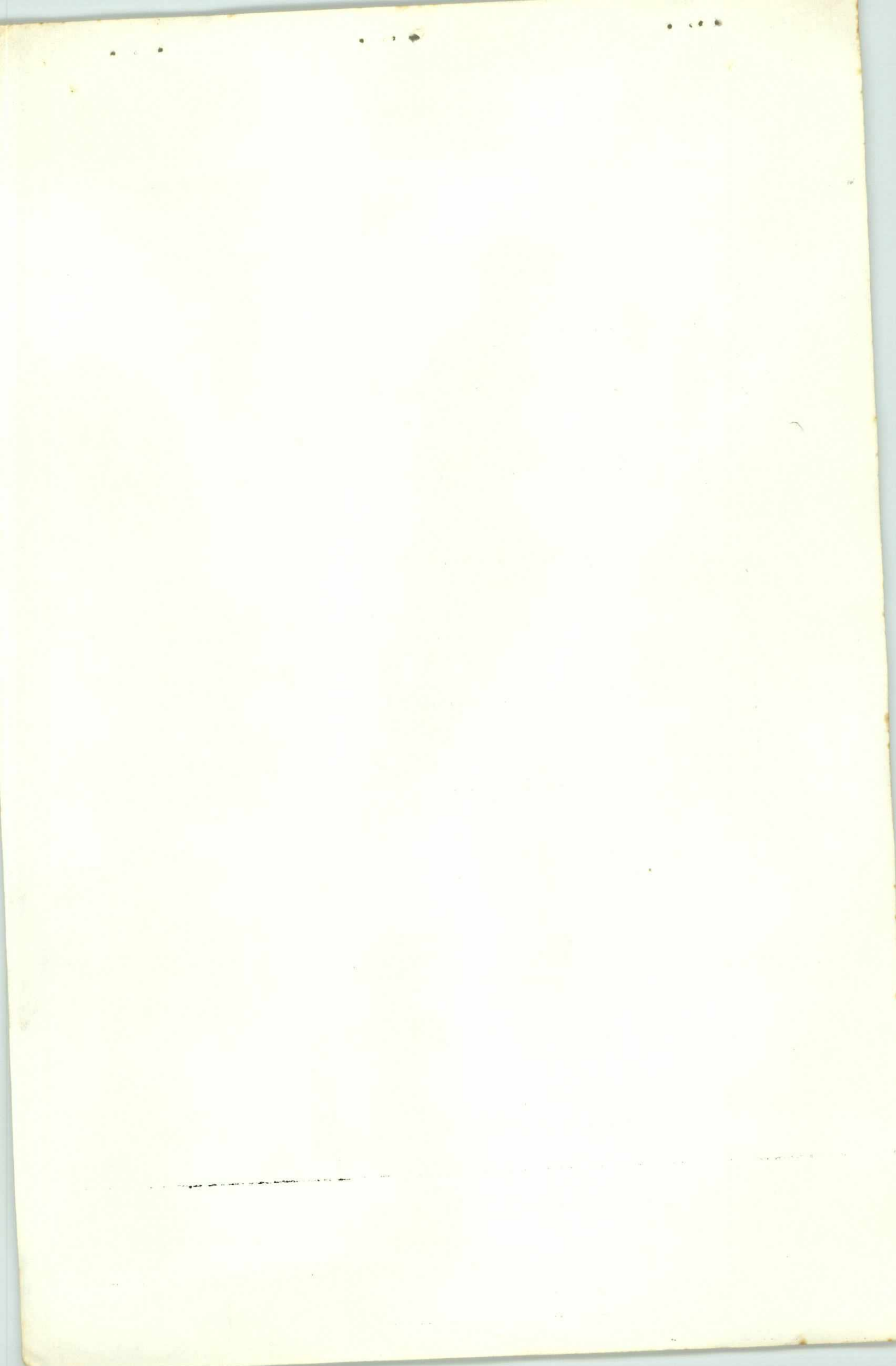
MOIS	Heures antéméricidiennes					Heures postméricidiennes					Intervalles		
	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	7-12	7-17	12-17
J.	22.3	32.6	46.8	54.9	64.9	56.2	57.8	63.6	63.6	58.5	44.2	52.1	59.9
F.	36.8	50.0	50.3	56.8	52.1	55.7	63.5	65.0	69.3	58.2	49.2	55.7	62.3
M.	22.0	39.7	36.8	47.5	47.8	54.6	48.8	46.8	40.7	17.8	38.7	40.2	41.7
A.	32.6	45.3	52.9	48.3	40.6	43.9	35.6	29.0	29.3	15.0	45.6	38.1	30.6
M.	22.9	40.4	44.3	29.4	24.9	32.9	42.0	22.9	26.8	19.7	32.3	30.5	28.8
J.	28.0	39.7	37.7	36.7	36.3	39.0	42.3	41.7	45.0	38.3	35.7	38.5	41.3
A.	22.3	34.6	31.7	29.4	33.3	44.6	41.3	43.9	35.2	17.8	30.1	33.3	36.5
S.	53.0	69.1	61.0	65.2	64.3	79.1	80.1	85.3	75.9	51.3	62.5	68.3	74.2
O.	53.6	63.6	65.9	69.6	66.3	61.9	53.3	57.6	50.0	36.0	63.9	57.9	51.8
N.	45.9	61.0	64.3	45.5	41.0	42.3	47.5	47.8	40.1	26.8	51.5	46.1	40.8
D.	11.0	29.6	47.3	49.3	50.3	44.3	38.6	47.3	34.0	23.3	57.5	37.5	37.5
A.	29.4	40.1	41.3	44.9	30.1	32.9	35.2	44.6	46.8	38.1	39.1	39.3	39.5
A.	31.6	45.5	48.3	48.1	47.5	48.9	48.8	49.6	46.4	33.4	44.2	44.8	45.4
J.	60.1	62.0	63.6	69.1	75.9	74.0	66.2	61.0	44.6	37.1	66.0	61.3	56.5
F.	63.5	71.7	72.8	74.3	68.9	67.1	60.3	58.9	54.6	37.8	70.3	63.1	55.8
M.	32.9	50.4	52.6	57.2	63.3	62.7	55.5	38.4	40.1	26.5	51.2	47.9	44.6
A.	35.0	45.7	47.3	60.3	60.7	53.3	53.7	51.0	37.0	24.3	49.8	46.9	43.9
M.	42.6	49.4	50.7	52.3	50.1	52.6	55.2	50.1	50.7	49.4	48.9	50.2	51.5
J.	28.7	36.3	46.7	48.3	45.3	50.0	49.0	49.3	65.0	53.0	41.1	47.2	53.3
J.	23.3	34.3	39.4	46.5	42.1	42.0	50.1	51.7	53.3	40.7	41.1	42.9	47.5
A.	66.5	87.2	91.1	89.5	81.4	84.0	87.5	83.0	76.9	73.0	38.4	42.9	80.7
S.	53.7	70.7	77.3	78.3	77.7	67.7	62.0	58.3	60.0	40.3	63.0	61.9	57.7
O.	62.3	72.0	74.3	72.3	70.4	69.4	65.2	55.5	57.5	39.7	71.6	64.7	57.4
N.	30.7	37.3	48.3	50.3	73.3	72.7	77.3	58.0	45.7	20.7	70.2	63.8	54.9
D.	45.2	39.7	43.6	44.3	53.9	56.5	62.0	56.2	47.8	38.8	48.0	51.5	54.9
A.	45.4	55.5	59.0	61.9	64.2	62.7	62.0	55.9	52.8	40.1	47.3	49.7	52.2

MOIS	Heures antémériidiennes					Heures postmériidiennes					Intervalles		
	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	7-12	7-17	12-17
J.	62.3	73.6	71.4	62.0	59.4	59.1	53.6	51.3	51.7	56.8	65.7	60.1	54.4
F.	64.6	67.8	65.0	58.9	49.6	52.5	49.6	52.5	50.0	45.7	61.2	55.7	50.1
M.	34.6	49.4	45.5	41.3	36.2	40.4	34.9	26.8	28.1	17.4	41.3	35.4	29.5
A.	42.0	40.0	48.7	47.7	38.3	30.3	37.3	34.3	32.7	25.7	42.0	33.3	32.1
M.	35.5	50.1	49.1	41.3	34.2	29.1	31.3	22.3	24.5	16.5	38.9	34.5	30.1
J.	41.7	41.0	36.7	42.3	33.0	35.3	29.7	32.0	27.7	25.7	33.8	32.3	30.9
J.	28.7	34.6	36.5	31.3	38.1	32.0	32.9	33.6	30.4	25.8	72.2	63.6	55.0
A.	70.4	77.2	70.7	73.6	69.4	65.6	56.8	60.4	53.0	39.7	53.8	46.3	38.7
S.	44.7	57.3	62.7	60.0	44.3	37.7	40.3	51.7	40.7	28.1	62.6	54.5	46.5
O.	59.7	70.7	69.1	63.0	50.7	58.1	54.3	28.7	23.7	17.0	42.4	35.1	27.9
N.	35.3	43.3	53.7	46.0	33.7	36.7	33.3	35.2	42.6	37.5	45.5	41.8	38.1
D.	51.3	49.7	47.1	41.7	37.8	39.7	35.5	40.1	42.6	29.8	50.2	44.2	38.2
A.	47.6	54.5	54.7	50.7	43.7	43.0	40.8	40.1	37.2	29.8	50.2	44.2	38.2

RIVERRE-COLLINE

1870  
1871  
1872  
1873  
1874

1875  
1876  
1877  
1878  
1879  
1880





1875

1876

1877

1878

1879

1880

1881

1882

1883

1884

1885

1886

1887

1888

1889

1890

1891

1892

1893

1894

1895

1896

1897

1898

1899

1900

1901

1902

1903

1904

1905

1906

1907

1908

1909

1910

A. POUVOIR EVAPORANT DE L'AIR.

MOIS EV (EV)<sub>N</sub> EV-(EV)<sub>N</sub> EV<sub>A</sub> EV<sub>a</sub> EV (EV)<sub>N</sub> EV-(EV)<sub>N</sub> EV<sub>A</sub> EV<sub>a</sub> EV (EV)<sub>N</sub> EV-(EV)<sub>N</sub> EV<sub>A</sub> EV<sub>a</sub>

KARAMA-KILIMBI (6)

MOIS	EV	(EV) <sub>N</sub>	EV-(EV) <sub>N</sub>	EV <sub>A</sub>	EV <sub>a</sub>	EV	(EV) <sub>N</sub>	EV-(EV) <sub>N</sub>	EV <sub>A</sub>	EV <sub>a</sub>	EV	(EV) <sub>N</sub>	EV-(EV) <sub>N</sub>	EV <sub>A</sub>	EV <sub>a</sub>
J.	112.0	106.3	+5.7	6.9	0.8	116.0	108.3	+7.7	6.5	0.8	107.6	98.4	+9.2	5.8	1.3
F.	106.8	92.7	+14.1	7.9	1.5	109.8	90.1	+19.7	7.7	0.7	110.1	84.9	+25.2	8.3	1.8
M.	121.7	92.7	+29.0	7.2	1.0	133.9	87.1	+46.8	8.5	0.9	101.4	84.9	+16.5	6.4	0.6
M.	73.4	76.3	-2.9	4.3	0.9	72.4	78.1	-5.7	4.1	0.6	58.9	64.3	-5.4	3.4	0.6
A.	84.0	98.8	-14.8	5.0	0.9	85.3	99.9	-14.6	5.0	0.9	70.6	79.4	-8.8	4.0	0.6
M.	112.4	129.4	-17.0	5.2	0.8	114.0	150.3	-36.3	5.5	0.8	82.9	125.8	-42.9	4.5	0.6
J.	105.7	175.3	-69.6	6.0	0.9	108.0	210.0	-102.0	6.6	0.7	96.9	187.9	-91.0	6.1	0.6
J.	189.3	199.0	-9.7	8.5	3.7	203.2	228.0	-24.8	9.0	3.9	203.9	201.2	+2.7	8.5	1.2
A.	174.9	175.5	-0.6	8.5	2.0	189.7	184.9	+4.8	10.2	1.8	143.5	159.0	-15.5	8.2	2.0
S.	156.6	127.7	+28.9	7.6	2.0	163.4	139.1	+24.3	8.2	1.5	152.5	122.0	+30.5	8.5	1.5
O.	82.2	75.6	+6.6	5.2	1.4	85.6	82.0	+3.6	6.8	1.4	74.3	81.0	-6.7	5.0	0.7
N.	65.9	90.5	-24.6	4.0	0.7	74.9	97.4	-22.5	5.0	0.9	81.6	91.5	-9.9	5.7	0.7
D.	1384.9	1439.8	-54.9	8.5	0.7	1456.2	1555.2	-99.0	10.2	0.6	1284.2	1380.3	-96.1	8.5	0.6

KARAMA-PLATEAU (11)

RWERERE-COLLINE (11)

RWERERE-MARAIS (12)

RUBONA (20)

J.	92.6	98.9	-6.3	4.4	0.9	68.1	76.1	-8.0	4.0	0.7					
F.	94.9	76.5	+18.4	6.6	1.1	58.5	60.5	-2.0	4.6	0.6					
M.	81.2	68.5	+12.7	6.6	0.8	61.9	60.0	+1.9	3.8	0.4					
M.	47.0	48.4	-1.4	3.2	0.8	49.8	45.9	+3.9	2.7	0.5					
A.	42.5	51.4	-8.9	2.3	0.4	46.5	53.4	-6.9	3.0	0.6					
M.	47.3	81.2	-33.9	2.8	0.4	48.8	70.8	-22.0	3.4	0.4					
J.	57.1	122.2	-65.1	4.1	0.4	50.9	88.4	-37.5	2.8	0.4					
J.	112.0	123.0	-11.0	5.4	1.3	79.6	93.3	-13.7	3.7	1.1					
A.	93.5	102.0	-8.5	6.1	1.1	69.2	86.2	-17.0	4.5	0.9					
S.	100.1	92.2	+7.9	6.0	1.8	77.6	73.1	+4.5	4.4	1.2					
O.	66.7	65.2	+1.5	3.7	1.0	66.9	58.5	+8.4	3.2	1.1					
N.	82.0	85.1	-3.1	6.0	0.9	63.4	69.5	-6.1	4.9	0.5					
D.	916.9	1014.6	-97.7	6.6	0.4	741.2	835.7	-94.5	4.9	0.4					

B. EVAPORATION D'UNE NAPPE D'EAU LIBRE (CUVE ENTERRÉE DE 4M<sup>2</sup>).

(EN MILLIMÈTRES)

a. TOTAUX MENSUELS ET ANNUELS:

	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	A.
KARAMA-KILIMBI	115	106	127	101	106	107	93	135	134	135	116	84	1359
KARAMA-PLATEAU	123	120	132	104	114	114	97	147	147	150	114	90	1452
RUBONA	130	118	132	107	109	81	95	156	141	150	111	99	1429

b. MOYENNES JOURNALIÈRES MENSUELLES ET ANNUELLES.

	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	A.
KARAMA-KILIMBI	3.7	3.8	4.1	3.4	3.4	3.5	3.0	4.3	4.5	4.3	3.9	2.7	3.7
KARAMA-PLATEAU	4.0	4.3	4.3	3.5	3.7	3.8	3.1	4.7	4.9	4.8	3.8	2.9	4.0
RUBONA	4.2	4.2	4.3	3.6	3.5	2.7	3.1	5.0	4.7	4.8	3.7	3.2	3.9

C. EVAPOTRANSPIRATION POTENTIELLE (EV<sub>P</sub>) ET ACTUELLE (EV<sub>a</sub>) D'UNE COUVERTURE DE PASPALUM NOTATUM.  
(EN MILLIMETRES)

a. TOTAUX MENSUELS ET ANNUELS:

	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	A.
KARAMA-PLATEAU EV <sub>P</sub>	109	95	123	82	91	102	67	146	142	151	121	87	1316
EV <sub>a</sub>	48	34	66	57	61	15	35	1	12	58	85	57	529

b. MOYENNES JOURNALIERES MENSUELLES ET ANNUELLES.

KARAMA-PLATEAU EV <sub>P</sub>	3.5	3.4	4.0	2.7	2.9	3.4	2.2	4.7	4.7	4.9	4.0	2.2	3.6
EV <sub>a</sub>	1.5	1.2	2.1	1.9	2.0	0.5	1.1	0.0	0.4	1.9	2.8	1.8	1.4

FEDERAL BUREAU OF INVESTIGATION  
 (2025 RELEASE UNDER E.O. 14176)

IDENTIFICATION NUMBER: 100-100000-100000  
 NAME: [Illegible]

BIRTH DATE: [Illegible]  
 PLACE OF BIRTH: [Illegible]

OCCUPATION: [Illegible]

EDUCATION: [Illegible]

OTHER INFORMATION: [Illegible]

