SOMALI DEMOCRATIC REPUBLIC

MINISTRY OF AGRICULTURE

*

NORTH - WEST REGION
AGRICULTURAL DEVELOPMENT PROJECT

FEASIBILITY STUDY AND TECHNICAL ASSISTANCE

*

TECHNICAL REPORT N° 2

CLIMATOLOGY

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SOGREAH
Consulting Engineers
GRENOBLE - FRANCE

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SUMMARY AND CONCLUSIONS

GENERAL

Several characteristic features may be noted in the climate of the North West Region :

- Average rainfall of 400 mm/year, which means that the climate is classed as semi arid. However, there is a great difference between the coastal plain which receives less than 100 mm and the plateau where annual precipitation can reach 600 mm.

- Precipitation is generally in the form of downpours at the end of the day. These storms which last between 1 and 2 hours affect small areas and are independent from each other.

- The amount of rainfall varies greatly from year to year. For example, 2 to 180 mm for Berbera and 209 to 810 mm for Hargeysa.

- The wind regime is very regular and the region is subject to the influence of two monsoons, one from the north east from October to May and the other from the south west from June to September. The latter is characterised by a strong, hot wind known as the Kharif.

- The year can be divided into two seasons, the dry season from October or November to February or March and the rainly season from April to September.

- High temperatures on the coast during the summer (35°C) together with the search for better pastures cause seasonal migration to the interior of the country where temperatures are around 25°C.

USE OF EXISTING DATA

Apart from previous studies, all relevant information available in Mogadishu was also examined. Particular effort was made to discover daily recordings, for rainfall had never been studied to such detail.

A visit to the National Mete
was of considerable help in th

All the information collected is p

3. 1980 MEASUREMENT CAMPAIGN

About 10 rain-gauges as well as 4 complete stations were set up to improve knowledge of rainfall and other climatic parameters, particularly in the intermediate area between the plateau and the coastal plain.

Two technicians were trained from May to November 1980 in climatological and hydrological measurement techniques. Unfortunately they resigned from their posts at a later date and in March 1981 Sogreah was obliged to complete the training of an engineer who subsequently took charge of the measurements network.

1980 was a dry year with a return period of about 8 years. The rai
deficit was 40 % for the region as a whole but reached 60 % in pla
The start of the rainy season was exceptionally dry but in Septembe
and October excess rainfall was recorded in relation to the norm.

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INTRODUCTION

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This study was performed according to the specifications set by the revised proposal which state :

"Installation of meteorological stations and a certain number of raingauges will enable the main features of the local climate to be determined and it will thus be possible to :

- Establish the mechanism by which floods are generated from rainfall,
- Obtain information on evaporation, rainfall, temperatures, wind."

The climatic network will be described in detail in chapter 2, that is as envisaged :

- "3 complete stations (measuring rainfall, relative humidity, temperature) on the plateau, along a N.S. axis,
- 1 complete station near the pilot farm,
- about 10 rain gauge stations following one or more fall lines, starting from the lowest point inhabited, as far as the highest point."

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CONTENTS

MAPS

APPENDIX

EXISTING DATA

1.1 PREVIOUS WORK

There are not many studies dealing with the North West Region of Somalia :

- 1951 - J.A. Hunt "A general survey of the Somaliland Protectorate (1944 - 1950)".

  Although this report deals with the whole of Somalia, it nevertheless provides some interesting information on the N.W. Region.

  The average rainfall maps are too reduced to be of use. The detailed monthly rainfall records (1944 - 1950) constitute, for the secondary stations, the only information it was possible to find. Other data on climate (temperature and humidity) is only given monthly for Hargeysa and Berbera, again for the period from 1944 to 1950.

- 1960 - W.A. Mac Fayden "Water supply and geology of parts of British Somaliland, 1945 to 1960".

  Working on Somalia since 1933, it was this author who provided Hunt with the "Table of Annual Rainfall (1906 - 1939)".

- 1960 - H. Humphreys and Sons "Hargeysa water supply".

  This study only dealt with the area between Gebiley and Hargeysa. The rainfall study covering annual and monthly aspects, is based on observations from 1944 to 1958 at Hargeysa airport. The graph which was published entitled "Rainfall and Altitude" is not very satisfactory.

  On the other hand, interesting information is given on evaporation. It will be used in Chapter 4, section 4.2.

- 1972 - J.F. Griffits "The Horn of Africa", published in World Survey of Climatology, Vol. 10, Africa.

The rainfall study does not go beyond a very general level and uses Hemming's figures which had originally come from Hunt. However, the map of annual isohyets is considerably different from that prepared by Hemming, with 500 mm instead of 550 mm for the mountain barrier south of Berbera.

The climatic tables for Berbera and Hargeysa do not provide any new information except for average cloudiness.

1.2 BASIC DATA

Measurements made at the weather stations are centralised in Mogadishu by the meteorological service of the Civil Aviation Department.

Among the stations of interest for the project, only two were found that have supplied their daily readings on a regular basis: Hargeysa since 1963 and Boorama since 1967. Incomplete data was also discovered for Gebiley between 1957 and 1974. All these daily measurements are given in the appendix. Berbera has also been sending data since 1970 but this only includes indications of temperature, which moreover appear unreliable.

As far as annual data is concerned, there is nothing available earlier than 1953. All archives from before this date have either been lost or transported to England to the Meterological Office in Bracknell. During a visit there from 18 to 27 November 1980, daily measurements for Hargeysa from 1944 to 1959 and for Berbera from 1908 to 1950 were rediscovered. This data had to be written down by hand as there unfortunalely was no possibility of taking photocopies. This information is also presented in the appendix. Figures were also found for the annual maximum daily rainfall for Gebiley (1923), Saylac (1910 and 1925 - 1938), Hargeysa and Boorama (1924 - 1938).

Whenever possible, monthly and annual values were calculted from the available daily data. It was thus possible to eliminate some errors in the interpretation of the original documents, in transcription of figures or in calculations.

Hargeysa airport - weather station established in 1921

Rainfall is measured twice daily here, as are air temperature and instantaneaous wind speed. The recording anemometer is out of order. Period of sunshine is also measured but the sheet seems to be badly fitted and changed on an irregular basis.

Boorama - rain-gauge established in 1928

This weather station is in a dilapidated state. The rain-gauge is a 5 inch English type installed at ground level. A more modern device with an area of 1000 cm2 is awaiting the erection of a surrounding fence before being installed. The observer, who has held this post for many years, is very conscientious.

Gacan Libaax

The origin of this weather station could not be determined and its files are missing. Average annual measurements calculated from 5 years of data, are given by Hemming (1966). Sogreah found there good data for the last 3 years. For other years, available documents contain too many omissions and inaccuracies.

Gebiley - rain-gauge established in 1944

This gauge was read by the agricultural services but unfortunately recordings have often been interrupted, particularly in 1980. In August 1980, Sogreah installed a new rain-gauge which is currently monitored by PIU staff.

Geddeeble - rain-gauge established in 1979

This device installed on the experimental farm was formerly read by the Farm Manager. He was also responsible for taking daily readings on a few measuring devices at the weather station which Sogreah set up next to the rain-gauge. In view of the scarcity of results, in July 1980 it was necessary to recruit and train an independent observer for the experimental farm. Comparing readings on the two rain-gauges, i.e. that at the weather station and that on the farm, throws into doubt the value of recorded measurements from the latter for 1979 and 1980.

Aburriin - weather station on the experimental farm

This weather station has unfortunately only provided a very small amount of information because of the poor state of repair of the

2. THE MEASURING NETWORK

Table 1 gives a list of the stations and their coordinates. Map 1 indicates their location.

Table 1

Number	Name	Latitude (N)	Longitude (E)	Altitude (m)
1	Berbera	10°26'	45°02'	9
2	Lafaarug	10°01'	44°47'	705
3	Illinta Dhexe	9°59'	44°08'	1115
4	Horahaadley	9°51'	44°02'	1020
5	Geddeeble	9°45'	43°59'	1100
6	Agabar	9°56'	45°54'	900
7	Hargeysa	9°31'	44°05'	1370
8	Qabri Baxar	10°17'	43°43'	412
9	Waraqadhigta	10°11'	43°17'	570
10	Ceel Bardaale	9°55'	43°29'	1200
11	Arabsiyo	9°41'	43°46'	1340
12	Gebiley	9°42'	43°38'	1465
13	Ceel Gaal	10°59'	43°27'	20
14	Cabdi Gaadir	10°31'	42°55'	735
15	Xariirad	10°20'	42°52'	980
16	Bown	10°12'	43°05'	1345
17	Boorama	9°56'	43°11'	1465
18	Saylac	11°21'	43°28'	3
19	Tog Wajale	9°41'	43°20'	1564
20	Aburriin	9°31'	43°48'	1400
21	Mandeera	9°55'	44°43'	882
22	Gacan Libaax	9°53'	44°50'	1719

2.1 OLD STATIONS STILL IN USE

At the beginning of 1980, the following stations were still operational: Berbera, Hargeysa airport, Boorama, Gacan Libaax, Gebiley, Geddeeble, Aburriin and Arabsiyo.

Berbera - weather station established in 1906

There has been a rain-gauge at this station since March 1979 but it has never registered a single drop of water, which although not totally impossible nevertheless seems rather improbable.

Temperature recordings vary quite abnormally and this station which is managed by a single observer would not appear to provide valid information.

installations. In August 1980, it was improved by Sogreah by the addition of a direct reading rain-gauge and the supply of sheets for the thermo-hydrograph.

Arabsiyo - rain-gauge established in January 1980 by the German team building the Hargeysa to Gebiley road.

2.2 OLD ABANDONED STATIONS

In the past, there were rain-gauges at the following locations:

Saylac	1925 - 1939 and 1947 - 1950
Silil, now Ceel Gaal	1945 - 1950
Cabdi Gaadir	1945 - 1949
Bown	1944 - 1950
Tog Wajale	1944 - 1950
Mandeera	1947 - 1950

For the last 5 rain-gauges, monthly data is available and published in the report by John A. Hunt entitled "A general survey of the Somaliland Protectorate" (1951).

Lafaruug	1957 - 1965

Only annual values in inches were found for this rain-gauge at Hargeysa airport.

2.3 NETWORK CREATED DURING THE 1980 CAMPAIGN

The network of meteorological measuring devices was constituted by:

- Some existing stations: Berbera, Hargeysa, Boorama, Gacan Libaax and Arabsiyo;
- The installation of rain-gauges at poorly equipped existing stations: Gebiley, Geddeeble and Aburriin;
- The installation of rain-gauges at old abandoned stations: Ceel Gaal, Abdel Ghadir, Bown and Lafaruug;
- The creation of new stations at Illinta Dhexe, Horahaadley, Agabar, Qabri Baxar, Waraqadhigta, Ceel Bardaale and Xariirad.

This network was further improved by the installation of:

- 4 recording rain-gauges: Qabri Baxar, Waraqadhigta, Ceel Gaal and Bown;

- 4 complete weather stations with the following equipment:

Geddeeble

- Rain-gauge
- Meteorological shelter:
  - Thermo-hygrograph
  - Maximum thermometer
  - Minimum thermometer
  - Ordinary thermometer
  - Dry and wet thermometer
- Wind speed recorder
- Anemometer
- Colorado type evaporation pan
- Class A type evaporation pan

Qabri Baxar

- Recording rain-gauge
- Anemometer
- Meteorological shelter:
  - Thermo-hygrograph
  - Maximum thermometer
  - Minimum thermometer
  - Ordinary thermometer
  - Dry and wet thermometer

Ceel Gaal

- Recording rain-gauge
- Anemometer
- Meteorological shelter:
  - Thermo-hygrograph
  - Maximum thermometer
  - Minimum thermometer
  - Ordinary thermometer
  - Dry and wet thermometer

Bown

- Recording rain-gauge
- Anemometer
- Meteorological shelter:
  - Thermo-hygrograph
  - Maximum thermometer
  - Minimum thermometer
  - Ordinary thermometer
  - Dry and wet thermometer

3. RAINFALL

3.1 ANNUAL RAINFALL

Map 1, apart from indicating the location of the stations, shows average annual isohyets.

Table 2 gives annual rainfall for each measuring point. The average value indicated does not take account of 1980, which as will be seen later was an exceptional year.

Attemps by various authors to relate annual rainfall to altitude have always been disappointing. There is indeed a tendency for rainfall to increase with altitude but other factors also play an important role, this being especially true for relief.

3.1.1 Statistical study of annual rainfall

Figure 1 represents the fitting of annual rainfall figures according to Gauss's law (the variable is expressed as $\sqrt{x}$) for those stations with a long enough observation period. From the results, the following table can be drawn up showing the probability of annual rainfall

Station	Return period (years)								
	(20)	(10)	(5)	2	5	10	20	50	100
Boorama	330	370	410	520	630	700	750	820	860
Hargeysa	200	250	300	420	560	640	720	800	860
Gebiley	320	350	380	440	510	540	570	600	630
Bown	160	190	220	310	420	480	540	600	650
Cabdi Gaadir	95	120	150	230	330	380	430	480	520
Saylac	10	20	40	95	170	210	260	310	350
Berbera	4	10	20	50	95	120	150	180	200

3.1.2 1980 in comparison to a normal year

The two Hargeysa rain-gauges, in the town and at the airport, although less than 5 km apart, give very different results (322 mm against 193 mm), which cannot be attributed to reading errors since the same discrepancy is found for daily rainfall figures. Map 2 shows the isohyets for 1980.

ANNUAL RAINFALL (mm)

Table 2

Year	Burbera	Hargoysa	Gebiley	Ceel Gaal	Cabdi Gaadir	Bown	Boorama	Saylac	Tog Wajale	Mandeera	Gacan Libaax
1906	178										
1907	24										
1908	34										
1909	73										
1910	161							106			
1911	54										
1912	80										
1913	83										
1914	67										
1915	52										
1916	72										
1917	14										
1918	49										
1919	59										
1920	75										
1921	34	396									
1922	20	388	471								
1923	73	428	548								
1924	25	459									
1925	14	416					590	52			
1926	166	810					706	275			
1927	51	370					500	214			
1928	28	316					406	78			
1929	9	434					417	46			
1930	118	525					573	176			
1931	36	644					514	21			
1932	56	388					660	206			
1933	22	316					404	52			
1934	43	386					467	139			
1935	158	464					660	83			
1936	61	489					674	13			
1937	45	453					642	146			
1938	28	308					347	33			
1939	33	600					442	87			
1940	102										
1941											
1942	3										
1943	71										
1944	3	310	331			175	502		557		
1945	37	356	526	43	266	319			455		
1946	26	433	461	55	343	363			583		
1947	2	541	451	72	261	443	574	59	494	117	average 660
1948	64	406	357	22	269	292	403	36	455	414	
1949	91	277	490	175	204	420	500	80	534	495	
1950	96	382	529	127		254	437	59	456	408	
1951		657					389				
1952		259					392				
1953		417					586				

Table 2 -continued

Year	Berbera	Hargeysa	Gubiley	Ceel Gaal	Cabdi Gaadir	Bown	Boorama	Saylac	Tog Wajale	Lafaruug	Mandeera	Gacan Libbax
1954		381		76			537					
1955		285		47			364					
1956		446		85			317					
1957		572	407	367			525			325		
1958		370	360							166		
1959		396					311			163		
1960		623					713			273		
1961		459					864			232		
1962		209								599		
1963		529								413		
1964		374								226		
1965		156										
1966		308	372									
1967		593					565					
1968		509					584					
1969		366					486					
1970		312					402					
1971		399	444				608					
1972		343	416				505					
1973		222	421				442					
1974		385	470				469					
1975		449					524					
1976		745					516					594
1977		809					429					
1978		498					635					
1979		444					659					566
1980	0	193	372	36	113	220	370			104		537
mean	59	430	441	107	269	324	517	97	505	287	357	625

Note : 1980 has not been included in the average.

Consulting Figure 1, it can be seen that 1980 was a dry year with the following return periods according to location: Boorama 10 years, Bown 5 years, Cabdi Gaadir 12 years, Gebiley 6 years and Hargeysa 8 years. This corresponds to an average return period of 8 years.

The following table indicates the rainfall deficit in relation to a normal year:

Station	Rainfall		Déficit	
	Average	1980	mm	%
Hargeysa	430	258	172	40
Gebiley	441	372	69	16
Boorama	517	370	147	28
Bown	324	220	104	32
Cabdi Gaadir	269	113	156	58
Gacan Libaax	660	489	61	26
Ceel Gaal	107	36	71	66
Lafaruug	287	104	183	64

The average deficit is 40 % but it can be seen that it is very roughly inversely proportional to average rainfall, i.e. the drought hit hardest those areas normally receiving the least rainfall.

3.2 MONTHLY RAINFALL

3.2.1 Average monthly rainfall

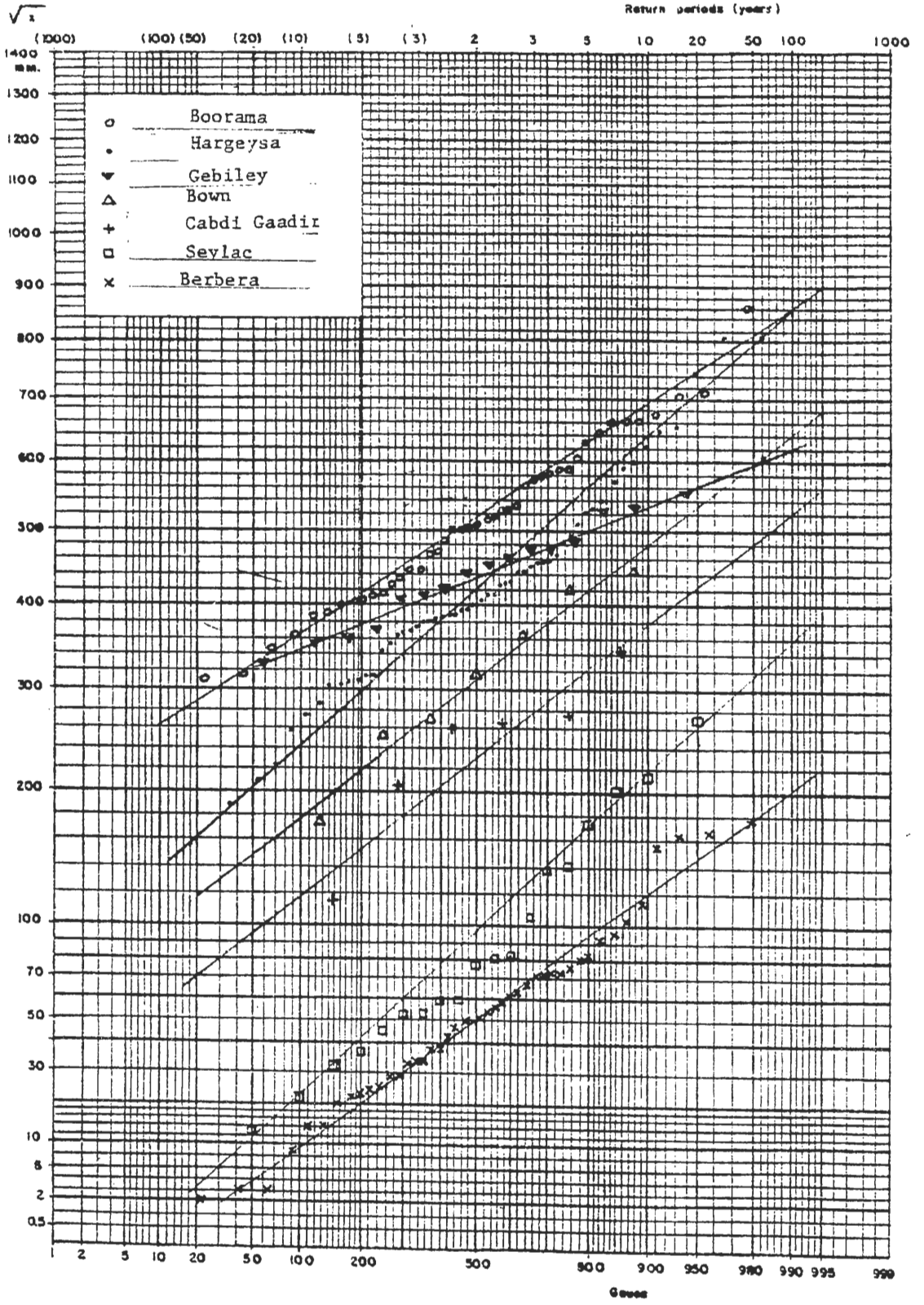
Table 3 shows average monthly rainfall distribution in millimetres. Table 4 gives the same values expressed as a percentage of the annual total.

Figure 2 makes it possible to compare rainfall distribution for the most characteristic stations. Moving from east to west from Berbera to Saylac it can be seen that there is a difference in the occurrence of the wettest months. The following table illustrates the basic results of such comparison.

Station	Wettest month	Wettest quater	Total (%) March, April May	Total (%) July, August September
Berbera	April	March, April, May	55	10
Mandeera	May	March, April, May	38	29
Hargeysa	August	July, August, September	36	41
Boorama	August	July, August, September	32	50
Cabdi Gaadir	August	July, August, September	30	50
Saylac	November	Nov., Dec., January - 47 %	-	-

Fig. 1

ANNUAL RAINFALL DISTRIBUTION



MEAN MONTHLY RAINFALL
(mm)

Table 3

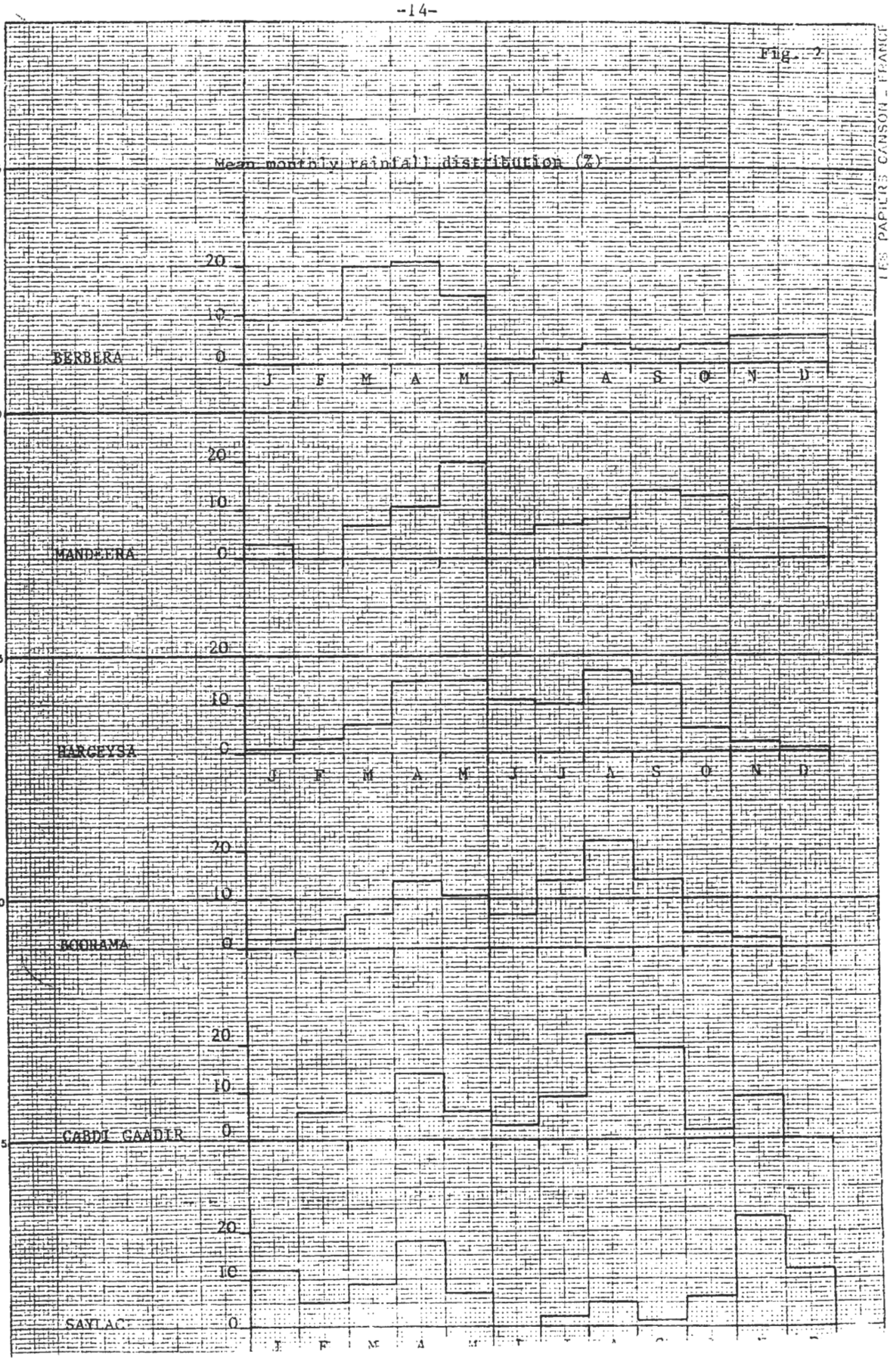
Station	J	F	M	A	M	J	J	A	S	O	N	D	Year
Hargeysa	3	10	25	63	66	49	44	74	62	22	10	2	430
Gebiley	1	5	25	53	56	54	75	86	62	12	10	2	441
Tog Wajale	1	11	35	57	72	58	71	93	76	7	16	8	505
Boorama	11	20	35	71	54	37	73	115	74	13	12	2	517
Bown	1	8	30	55	31	10	35	55	55	12	29	3	324
Cabdi Gaadir	1	17	26	39	15	9	24	58	50	6	24	0	269
Mandeera	10	1	26	39	72	16	25	28	51	46	22	21	357
Ceel Gaal	16	8	4	8	7	0	8	8	5	2	21	19	107
Saylac	12	4	9	17	7	0	2	5	1	6	22	12	97
Berbera	5	5	12	12	9	1	2	2	2	2	3	4	59

MEAN MONTHLY RAINFALL
(%)

Table 4

Station	J	F	M	A	M	J	J	A	S	O	N	D	Year
Hargeysa	1	3	6	15	15	11	10	17	14	5	2	1	
Gebiley	0	1	6	12	13	12	17	20	14	3	2	0	
Tog Wajale	0	2	7	12	14	12	14	18	15	1	3	2	
Boorama	2	4	7	14	11	7	14	22	14	3	2	0	
Bown	0	3	9	17	9	3	11	17	17	4	9	1	
Cabdi Gaadir	0	6	10	14	6	3	9	22	19	2	9	0	
Mandeera	3	0	7	11	20	5	7	8	14	13	6	6	
Ceel Gaal	15	8	4	7	6	0	8	8	5	2	19	18	
Saylac	12	5	9	18	7	0	2	5	1	6	23	12	
Berbera	9	9	20	21	14	1	3	4	3	4	6	6	

Fig. 2



It can also be seen that the coast receives "winter rains", more markedly for Saylac than Berbera. For the other stations which represent the largest part of the N.W. Region, the rainy season is between March and September with 2 peaks in April and August. These two peaks, of variable relative prominence, are separated by a dry period in June, which also varies in accentuation from station to station.

By making this distinction between winter rains on the coast and summer rains in the interior, the disproportion which exists in the volume of rainfall from place to place should not be forgotten. In fact, Hargeysa receives as much precipitation during the months of December, January and February as Berbera (15 mm).

Monthly rainfall figures for each rain-gauge may be found in the appendix (pages 1 to 12).

3.2.2 Monthly rainfall in 1980

1980 was an exceptional year not only by virtue of the low level of rainfall but also by its distribution.

Table 5 gives rainfall figures at the various stations. Figure 3 provides a comparison between normal rainfall and that of 1980 for Hargeysa and Boorama.

It can be seen that if rainfall was well below average at the start of the rainy season, it had caught up and often exceeded the norm by the end.

This state of affairs was catastrophic for livestock but had a less severe effect on agriculture.

3.3 DAILY RAINFALL

The ancient records of daily rainfall are to be found in the appendix, pages 29 to 130.

3.3.1 Spatial distribution

Widespread rainfall is uncommon. Most precipitation is in the form of downpours over limited areas with a radius of 20 to 50 km and with extremely clear boundaries.

The result is that two neighbouring rain-gauges may give very different measurements and that no correlation from station to station is possible on a daily basis. This phenomenon is clearly demonstrated in the comprehensive tables of daily rainfall (see pages 13 to 21 in the appendix).

MONTHLY RAINFALL (1980)
(mm)

	Hargeysa (airport)	Hargeysa (town)	Hargeysa (average)	Arabsiyo	Aburriin	Gebiley	Boorama	Bown	Xariirad	Cabdi Gaadir	Ceel Bardaale	Geddeeble	Agabar	Horahaadley	Illinta Dheze	Gacan Libaax	Lafarnug	Waraqadnigta	Gabri Bazar	Ceel Gaal	Berbera
January	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20.4	0	0	0	0	0
April	13.0	27.3	20.2	20.0	7.8		30.5	2.2	0	0	39.5		0	0	0	154.5	22.5	21.4	23.8	0	0
May	41.0	50.5	45.8	5.0	7.2	33.0	26.0	45.0	0	2.0	57.5		37.6	19.0	15.0	119.1	5.0	43.2	0.6	0	0
June	16.0	13.6	14.8	0	14.5	-	10.0	1.8	1.0	0	19.5		1.0	15.5	11.5	4.1	0	0	0	0	0
July	23.3	45.8	34.6	18.8	3.6	-	101.0	27.0	47.0	19.0	5.5	30.0	1.5	3.4	56.5	12.0	15.0	13.8	3.2	0.8	0
August	5.0	49.1	27.0	141.4	72.4	174.0	117.0	55.0	16.0	47.0	43.5	32.0	46.5	50.0	7.5	82.4	0	15.2	3.0	6.4	0
September	69.0	77.3	73.2	87.2	28.7	95.0	66.0	47.4	33.0	23.0	65.0	20.0	27.5	34.2	23.5	86.1	61.0	12.6	38.6	2.8	0
October	24.3	51.2	37.8	24.4	96.2	70.0	19.0	30.0	15.0	22.0	?	97.0	?	28.0	?	?	?	13.0	14.2	22.0	0
November	1.8	7.7	4.8	0	2.2	0	0	11.6	0	0	0	0	0	0	23.0	?	0	5.0	3.0	4.4	0
December	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	193.4	322.5	258.0	296.8	232.6	372.0	396.5	220.0	112.0	113.0	230.5	179.0	114.1	150.2	137.0	488.6	103.5	124.2	86.4	36.4	0

Table 5

MONTHLY RAINFALL

STATION : ZEYLAC

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1910	4.3	0	66.1	0	0	0	0	1.0	0	0	0	12.7	106.1
1924								9.4	0	0	0	4.8	
1925	8.6	1.8	0.5	0	0	0	0	13.2	2.5	16.5	8.6	0	51.7
1926	12.2	63.0	12.2	2.0	11.7	0	1.0	6.6	0	1.3	158.0	6.6	274.6
1927	6.4	4.3	0	199.4	0	0	0	0	0	0	0	3.8	213.9
1928	25.9	0	8.1	0	7.6	0	0	0	4.1	18.0	14.5	0	78.2
1929	0.5	3.1	0	0	0	0	0	16.0	0	0	23.4	3.1	46.1
1930	106.4	0	3.3	3.3	0	0	0	5.1	0	49.5	0	8.9	176.5
1931	5.1	1.5	0	0	0	0	0	4.6	10.2	0	0	0	21.4
1932	0	3.6	6.6	0	73.7	0	0	3.1	0	0	0	119.4	206.4
1933	14.7	0	0	6.6	0	0	0	10.9	0	5.8	14.0	0	52.0
1934	0	1.3	5.3	0	0	0.2	0	11.9	0	0	117.9	2.0	138.6
1935	0	0	0	27.7	13.7	0	0	2.0	0	0	0	39.9	83.3
1936	1.5	0.8	2.5	0	2.5	0	0	2.5	0	0	0	2.8	12.6
1937	15.2	0.2	18.8	85.3	2.5	0	0	0	0	7.1	8.1	8.4	145.9
1938	3.3	0	0	0	0	0	6.4	10.2	0	0	12.7	0	32.6
1939													36.6
1947	0	1.3	0	0	22.8	0	0	0	0	0	28.5	6.6	59.2
1948	0.8	0	15.2	0.5	0	0	0	0	0	16.5	3.1	0	36.1
1949	0	0	0	0	0	0	0.5	0	0	0	59.7	30.3	30.5
1950	17.8	0	0	2.0	0	0	24.3	0	0	4.6	0	0	58.7

MONTHLY RAINFALL

-

STATION : MANDEERA

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1947	0	0	0	0	34.3	18.3	25.2	0	0	39.4	0	0	117.2
1948	0	1.5	57.4	119.9	53.6	15.2	4.6	0	53.9	103.1	4.3	0	413.5
1949	1.3	0	45.2	1.3	125.7	21.3	15.0	53.4	27.4	36.1	82.8	85.1	494.6
1950	40.6	0	1.5	34.8	76.0	10.2	55.9	61.7	120.6	6.4	0	0	407.7

STATION : TOG WAJAALE

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1944	0	0	109.2	65.8	18.0	38.1	83.1	103.4	45.5	0	47.2	46.7	557.0
1945	0	0	0	39.1	110.5	38.9	51.6	86.9	117.1	3.3	7.6	0	455.0
1946	0	0	11.4	152.6	53.8	34.0	141.5	115.3	59.2	15.2	0	0	583.0
1947	0	68.3	114.3	54.4	18.0	52.3	68.3	71.4	43.2	0	4.3	0	494.5
1948	0	4.6	2.8	54.9	91.7	76.4	49.5	69.6	101.6	3.8	0	0	454.9
1949	0	0	9.4	6.4	162.3	69.1	31.2	114.3	62.0	17.0	54.4	8.4	534.5
1950	8.4	0	0	25.9	48.0	98.0	72.4	88.6	105.2	9.1	0	0	455.6

DAILY RAINFALL - April 1980

	Hargeysa (air)	Hargeysa (town)	Arabsiyo	Aburrin	Gebiley	Boorama	Bowa	Hariraad	Gabdi Gaadir	Ceel Berdaale	Ged Deeble	Agabar	Horahaadley	Illinta Dhexe	Gacan Libaax	Lafarug	Waraqadigta	Wadi-Hamar	Ceel Gaal	Berbera
1																				
2																				
3																				
4						1.5									16.3					
5															31.5					
6															17.8					
7	1.0														10.2					
8	5.0														1.3					
9																				
10																				
11																				
12															29.0		S	S		
13																				
14										S					5.3					
15										4.0										
16		0.2		1.9		2.0				4.5										
17						5.0												0.4		
18		0.4	8.0							20.0					38.1					
19		25.0		1.7			S	S	S									23.2		
20																				
21																		0.2	S	
22																				
23																				
24															7.4	S				
25						2.0														
26												S			7.6					
27						3.0														
28		0.1	3.0			4.0	0.6									17.0				
29				4.2			1.6			11.0						5.5				
30	7.0	1.6	9.0			13.0							S	S			21.4			
31																				
Month	13.0	[illegible]	20.0	7.8		30.5	2.2	0	0	39.5		0	0	0	164.5	22.5	21.4	23.8	0	0

S , Start of observations.

DAILY RAINFALL - May 1980

	Hargeysa (air)	Hargeysa (town)	Arabsiyo	Aburriin	Gebiley	Boorama	Bown	Hariraad	Gabdi Gaadir	Ceel Berdaale	Ged Deeble	Agebar	Horahaadley	Illinta Dnexe	Gacan Libaax	Lafaruug	Waraqadhigta	Gabri-Baxar	Ceel Gaal	Berbera
1	35.0	23.0	5.0		33.0	23.0	1.0			30.0			0.5		25.4	0.5				
2	4.0	27.5					22.6		2.0				0.5		21.3		18.8	0.6		
3													1.0							
4							0.4							0.5						
5							1.0													
6																				
7															2.5					
8												14.0			10.7					
9										1.5				1.5	3.8					
10												2.5								
11	2.0			5.3		3.0				26.0					25.4					
12							19.8						1.0				24.4			
13																				
14																				
15							0.2													
16																				
17															12.7					
18																				
19				1.9									3.0		5.1					
20												5.1			9.9					
21																				
22																				
23																				
24																				
25												2.0								
26																				
27												14.0	13.0	6.0						
28														6.0						
29														1.0	2.3					
30																				
31																				
Month	41.0	50.0	5.0	7.2	33.0	26.0	45.0	0	2.0	57.5		37.6	19.0	15.0	119.1	5.0	43.2	0.6	0	0

DAILY RAINFALL - June 1980

	Hargeysa (air)	Hargeysa (town)	Arabsiyo	Aburrin	Gebiley	Bocrama	Bown	Hariraad	Gabdi Gaadir	Ceel Bardaale	Ged Deeble	Agabar	Horahaadley	Illinta Dhexe	Gacan Libaax	Lafaruug	Waraqadhigta	Gabri-Bxar	Ceel Gaal	Berbera
1	1.0	1.4		2.5									1.0		1.8					
2	1.0													2.0						
3																				
4																				
5		2.2											0.1	9.0						
6																				
7	12.0					8.0				15.0										
8		2.5																		
9																				
10	1.0																			
11		1.0																		
12		1.9		0.4			1.8						1.0							
13																				
14		0.6																		
15		0.1																		
16																				
17																				
18				5.5									0.4							
19		1.7		3.2																
20																				
21				0.2								1.0			2.3					
22	1.0			0.8																
23		0.2				1.0								0.5						
24				1.5		1.0				4.5										
25		2.0						1.0												
26													13.0							
27																				
28																				
29				0.4																
30																				
31																				
Month	16.0	13.6	0	14.5		10.0	1.8	1.0	0	19.5		1.0	15.5	11.5	4.1	0	0	0	0	

DAILY RAINFALL - July 1980

	Hargeysa (air)	Hargeysa (town)	Arabsiyo	Aburrin	Gebiley	Boorama	Bown	Hariraad	Gabdi Gaadir	Ceel Bardaale	Ged Deeble	Agabar	Horahaadley	Illinta Dhexe	Gacan Libaax	Lafaruug	Waraqadhigta	Gabri-Baxar	Ceel Gaal	Berbera
1						6.0		1.0		1.5					9.7	15.0				
2						3.0														
3						4.0	1.8													
4																				
5						30.0				1.5			0.1							
6						18.0	15.4				30.0			25.0						
7		8.5				4.0	0.6										1.2			
8																				
9	1.0																			
10						4.0							2.0							
11						5.0		6.0						3.5						
12							3.4			2.5										
13	1.0	20.0				5.0											7.2			
14		1.8						3.0				1.5								
15																				
16																				
17	8.0	3.5		2.3																
18	4.0	3.0																		
19																				
20																				
21																				
22								2.0												
23								6.0												
24						6.0		15.0					1.3							
25						4.0	2.0		6.0					6.0				1.0	0.2	
26			18.8			10.0	0.6	8.0									1.2	0.6		
27	9.0	9.0		1.3		2.0	3.4	6.0	7.0					22.0	2.3		4.2	1.6	0.6	
28									6.0											
29																				
30	0.3																			
31																				
Month	23.3	45.8	18.8	3.6		101.1	27.0	47.0	19.0	5.5	30.0	1.5	3.4	56.5	12.0	15.0	13.8	3.2	0.8	

DAILY RAINFALL -- September 1980

	Hargeysa (air)	Hargeysa (town)	Arabsiyo	Aourriir	Gebiley	Booramo	Bown	Hariraad	Gabdi Gaadir	Ceel Bardaale	Ged Deeble	Agabar	Horahaadley	Illinta Dhexe	Gacar Libaax	Lafaru-g	Waraqadhigta	Gabri-Bazar	Ceel Gaal	Berbera
1	6.0	5.0		1.2		15.0				11.0	1.0					12.0	3.4	7.2		
2						4.0	14.8		7.0											
3			8.0										0.1			7.0				
4					30.0	1.0	3.4				6.0		6.0							
5		5.5	14.0		20.0	9.0	1.2													
6			14.0					10.0												
7					8.0	5.0								6.0						
8		1.0	5.2			12.0	6.4				3.0								1.2	
9	2.0	6.0	6.2		7.0	13.0				4.5	1.0	14.5	15.0	6.0		10.0		1.4		
10	1.0	17.0						11.0	5.0								0.2			
11							3.2			3.0					4.3		1.2			
12	7.0	3.5				3.0								10.0						
13											2.0									
14												3.0								
15										2.0										
16													2.0	1.5	3.6					
17			2.0	7.5						1.5					1.5	4.0				
18		0.5					0.4				1.0									
19																				
20																				
21																				
22		2.8								9.0		2.0								
23											4.0									
24										11.0						22.0		3.2		
25	42.0		10.8	8.5		3.0		1.0	11.0	12.0			0.2		62.0	2.0	0.6	5.0	1.0	
26	2.0	36.0		11.5	30.0						2.0				2.0	4.0				
27	9.0						18.0								12.7					
28			0.6					7.0					11.0					21.6	0.6	
29						1.0		4.0		7.0		3.5					7.2	0.2		
30			26.4							4.0		4.5								
31																				
Month	69.0	77.3	87.2	28.7	95.0	66.0	47.4	33.0	23.0	65.0	20.0	27.5	34.3	23.5	86.1	61.0	12.6	38.6	2.8	

DAILY RAINFALL - August 1980

	Hargeysa (air)	Hargeysa (town)	Arabsiyo	Aourrin	Gebiley	Boorame	Bown	Hariraad	Gabdi Gaadir	Ceel Bardaale	Ged Deeble	Agabar	Horahaadley	Illinta Dhexe	Cacan Libaax	Lafarug	Waraqabigta	Gabri-Baxur	Ceel Gaal	Berbera
1																				
2																	0.8			
3							0.4													
4																				
5			15.3			8.0	0.4													
6				2.5		3.0						3.5								
7					6.0		5.4													
8		0.1													20.2					
9																				
10	1.0									1.5			1.0	5.0						
11							33.6		11.0								1.4	1.4		
12				1.0	8.0		0.2												6.4	
13		0.2				1.0						2.5								
14			17.0	5.5					11.0	2.5		1.5		2.5	43.2					
15			11.4	4.0		1.0		2.0		5.0										
16					30.0	4.0	0.6			9.5			13.0							
17			1.2			4.0						15.0								
18		16.0		40.8		27.0				2.0		2.5	9.0							
19				1.8		4.0	4.6						2.0							
20			9.8				0.2						10.0		2.5		0.8			
21	1.0	2.5	23.4				0.2													
22					40.0	3.0		2.0		10.0	19.0				2.5					
23						11.0			5.0											
24			24.6	1.8		4.0	0.4					3.5			2.5			1.4		
25		0.5	3.0			2.0									11.4					
26		3.0		2.0		8.0					2.0	4.5						0.2		
27				12.0		12.0	1.6			11.5										
28	2.0	23.8			10.0	20.0		6.0		1.5			5.0							
29	1.0																1.0			
30			6.0		40.0	5.0	6.8		9.0		11.0		10.0				10.6			
31		3.0	30.0	1.0	7.0		0.8	6.0	11.0			13.5					0.6			
Month	5.0	49.1	141.4	72.4	174.0	117.0	55.0	16.0	47.0	43.5	32.0	46.5	50.0	7.5	82.4	0	15.2	3.0	6.4	

DAILY RAINFALL - October 1980

1			1.3	1.2																
2				16.0			5.8				6.0	3.5		7.0						
3		11.0	11.0		10.0	10.0	0.6			0.4		2.0	4.0	1.0						
4	0.7	1.5	1.5		10.0		4.2	5.0		7.0	50.0			1.0						
5	0.6	16.8	16.8	2.0																
6				2.0			0.2													
7							0.4				1.0								3.6	
8							0.2								5.6					
9							3.4													
10							0.2													
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20			16.4			4.0		4.0	10.0				10.0			12.0			6.8	
21	23.0	17.0	8.0	75.0	30.0	5.0	14.6	6.0	5.0		10.0		3.0		15.2		12.8	14.0	7.4	
22					20.0		0.4		7.0		12.0		11.0		17.8		0.2	0.2	4.2	
23		3.6					0.2				18.0				10.2					
24																				
25																				
26																				
27																				
28																				
29																				
30																				
31																				
Month	24.3	51.2	24.4	96.2	70.0	19.0	30.0	15.0	22.0	11.0	97.0	5.5	28.0	9.0	48.8	12.0	13.0	14.2	22.0	0

DAILY RAINFALL - November 1980

	Hargeysa (air)	Hargeysa (town)	Arabsiyo	Aburriin	Gebiley	Boorame	Bown	Hariraad	Gabdi Geadir	Ceel Bardaale	Geé Leebie	Agabar	Horahaadley	Iliinta Dhexe	Gacan Libaax	Lafaruug	Weraqadhigta	Qabri-Baxar	Ceel Gaal	Berbera
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24			5.4																	
25	1.8	0.3	2.3											23.0						
26		7.4	4.2				11.6										5.0	3.0	2.2	
27				2.2															2.2	
28																				
29																				
30																				
31																				
Month	1.8	7.7	11.9	2.2	0	0	11.6	0	0	0	0	0	0	23.0	0	0	5.0	3.0	4.4	0

RAINFALL INTENSITY

STATION : HARGEYSA (town) YEAR : 1980

Date	Time		Duration (mim)	Rainfall (mm)	Intensity (mm/h)
	Beginning	End			
15/04	14.10	14.14	4	0.2	
17/04	16.00			0.4	
18/04	16.10	16.20	10	11.0	66
	16.20	16.40	20	14.0	42
27/04	17.00			0.1	
30/04	01.30			1.6	
	14.51	14.58	7	1.5	13
	14.58	15.03	5	4.0	48
	15.03	15.08	5	8.5	102
	15.08	15.13	5	6.0	72
	15.13	15.18	5	2.0	24
	15.18	15.23	5	1.0	12
01/05	16.33	16.38	5	5.5	66
	16.38	16.43	5	7.5	90
	16.43	16.48	5	4.0	48
	16.48	16.58	10	9.0	54
	16.58	17.15		0.5	2
	17.15	17.30		1.0	4
31/05	18.15	19.00	45	1.4	
04/06	16.15	16.45	30	2.2	1
07/06	16.05	17.20	85	2.4	2
10/06	16.00	16.30	30	1.0	2
11/06	16.00	16.30	30	1.9	4
13/06	17.30	17.45	15	0.6	2
14/06	18.15	18.30	15	0.1	4
18/06	16.30	17.30	60	1.7	2
22/06	15.30			0.2	
24/06	16.00	16.30	30	2.0	4
06/07	18.45	19.30	45	8.5	11
12/07	night			20.0	
13/07	16.00	16.30	30	1.6	3
	16.30	18.00	90	0.2	
16/07	17.15	17.35	20	3.5	10
17/07	18.45			3.0	
26/07	23.00	2.00	180	2.0	3

DAILY RAINFALL - March 1981

	Hargeysa (air)	Hargeysa (town)	Arabsiyo	Aburrin	Geidley	Boorama	Bown	Hariraad	Gabdi Gaadir	Ceel Bardaale	Ged Deeble	Agabar	Horahaadley	Illinta Dhexe	Gacar Libaay	Lafaruug	Waraadhigta	Qabri-Baxar	Ceel Gaal	Berbera
1																	10.4			
2																	136.0			
3			24.6								9.0						50.2			
4		5.5						4.0			8.0									
5		4.0																		
6																				
7																				
8																				
9																				
10																				
11			13.1								11.0									
12																				
13		0.4																		
14							17.4	1.5									17.9	56.3	6.8	
15		3.8	1.5				13.0	1.0			28.0			6.5			12.0	28.4		
16		45.0	31.0				1.2	10.0									27.0	22.2	1.0	
17		7.5	2.9				42.0											0.6	29.4	
18		23.0	12.2					5.0			77.0			15.0			26.0	0.2	6.0	
19		26.0	42.6				11.0	15.0			5.0			35.0			24.0	73.4	191.2	
20							2.8											2.2	14.8	
21							25.8										2.0	1.7	7.6	
22																		47.1		
23		15.0	1.3				0.2							20.0			12.5	0.2	0.2	
24		0.3	20.9																	
25			64.1				37.0										1.0		0.4	
26		1.5	0.7																	
27		0.7	8.3				0.4							12.0			1.5			
28		8.7	2.6				0.2										16.0	0.2	72.6	
29			12.4				0.6	3.0						6.5			3.0	55.6	0.2	
30		13.0					33.0	5.0										1.2	0.2	
31		0.4					0.2													
Month		154.8	238.7				184.8	44.5			138.0			95.0			338.6	289.3	330.4	

APPENDIX

CONTENTS

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MONTHLY RAINFALL

STATION : BERBERA

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1906	2.3	22.1	121.9	2.5	0.5	0	0	0	0	0	15.2	13.7	178.2
1907	0.8	0	0	10.9	0	0	0	2.5	6.9	0	2.8	0	23.9
1908	16.1	2.5	0	0	0	0	9.6	1.3	0	0	0	4.1	33.6
1909	3.7	0	0	33.8	31.8	0	0	0	0	0	0	4.1	73.4
1910	0.5	0	146.7	0	5.1	0	1.5	7.6	0	0	0	0	161.4
1911	11.4	0	41.8	0	0	0	0	0	0	0	1.3	0	54.5
1912	0	4.1	0	62.8	0	0	0	0	0	0	0	12.7	79.6
1913	0.8	26.4	17.8	0	38.1	0	0	0	0	0	0	0	83.1
1914	0	13.8	0	0	34.3	0	0	0.5	1.8	16.3	0	0	66.7
1915	0	0	0	46.7	0.8	0	0	0	4.1	0	0.2	0	51.8
1916	1.8	44.6	1.3	0	0	0	15.5	6.1	2.3	0	0	0.5	72.1
1917	0	0.2	0	5.1	1.8	0.5	5.8	0.5	0	0	0	0	13.9
1918	2.3	0	0	36.6	3.1	0	1.3	0	0	0	5.8	0	49.1
1919	0	0.2	41.1	13.0	4.3	0	0	0	0	0	0	0	58.6
1920	0	0.2	0	19.6	4.3			0.2	3.0		47.5	0.5	75.3
1921	0	2.3	0	0	0	0	0	0	17.3	13.5	1.3	0	34.4
1922	0	0	4.8	0	8.1	0	0	1.3	0	0	0	5.8	20.0
1923	0	4.8	0	34.8	0	0	0	0	0	30.5	0	2.5	72.6
1924	0.5	0	0	0	0	0	0	19.1	2.5	0	1.3	1.5	24.9
1925	0	2.5	0	0.2	0	0	0	0	5.6	0	5.6	0	13.9
1926	44.5	3.3	42.9	11.7	55.9	2.5	4.3	0	0.5	0	0.4	0	166.0
1927	2.0	2.0	0	47.2	0	0	0	0	0	0	0	0	51.2
1928	0	1.3	0	0	0	0	0	4.3	0	0	18.3	3.8	27.7
1929	0.5	0	0	1.0	0	2.8	0	0	0	0	0.8	4.3	9.4
1930	61.7	0	0.2	30.2	0	0	0	0	0	23.9	0	1.5	117.5
1931	-	0.5	2.5	-	21.6	-	-	0.5	11.2	-	-	-	36.3
1932	0.6	-	1.8	-	14.5	-	19.6	2.0	-	-	-	17.3	55.8
1933	7.3	-	-	-	5.6	-	-	8.9	-	-	-	-	21.3
1934	-	-	-	-	2.3	-	0.8	1.0	-	-	39.1	-	43.2
1935	-	4.8	-	88.4	47.7	-	-	-	-	-	-	16.7	157.6

MONTHLY RAINFALL

STATION : BERBERA - continued

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1936	0.2	57.0	0.3	-	-	-	-	1.5	-	-	-	2.2	61.4
1937	7.1	1.6	9.1	11.4	3.3	-	-	4.5	-	-	9.4	-	45.2
1938	-	-	1.3	-	1.3	-	14.0	10.9	-	-	-	-	27.5
1939	-	-	5.1	4.3							-	-	33.2
1940	-	30.8	61.1	-	10.2	-	-						102.1
1941													
1942	-	-	1.5	1.8	-	-	-	-	-	-	-	-	3.3
1943	-	-	-	-	65.1	-	-	-	-	5.6	-	-	70.7
1944	-	-	2.7	-	-	-	-		-	-	-	-	2.7
1945	-	0.7	2.7	1.6	2.7	21.9	-	2.3	-	-	-	-	36.9
1946	1.1	-	-	20.0	3.3	-	-	1.9	-	-	-	-	26.3
1947	-	-	0.3	-	0.6	-	-	1.1	-	-	-	-	2.0
1948	-	-	-	60.5	-	-	-	-	-	3.8	-	-	64.3
1949	-	-	-	-	-	-	-	4.7	18.6	-	-	67.9	91.2
1950	65.4	-	-	-	-	-	-	16.0	14.7	-	-	-	96.1

MONTHLY RAINFALL

STATION : HARGEYSA Airport

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1921				21.2	97.4	74.9	32.1	35.3	78.0	13.3	-	2.4	396.0
1922	-	-	21.6	17.3	109.7	23.6	121.2	27.4	60.2	7.1	-	-	388.1
1923	-	37.3	10.2	171.7	10.7	41.7	57.9	42.4	41.4	0..	7..	8..	428.3
1924	-	13.5	5.3	39.6	81.8	106.7	47.9	95.8	51.6	16.3	-	-	458.9
1925	0.2	-	6.8	19.6	49.3	64.3	88.4	97.5	47.0	16.0	27.1	-	416.2
1926	9.4	37.9	44.5	188.7	115.1	37.9	51.3	128.0	66.2	58.6	72.4	-	810.0
1927	0.2	0.2	-	65.0	108.8	20.3	57.0	62.0	47.8	5.8	3.2	-	370.4
1928	-	-	-	45.9	78.5	50.0	36.6	36.1	16.8	4.1	45.5	2.3	316.2
1929	-	-	-	90.7	67.1	64.5	59.2	56.1	74.4	16.5	4.6	1.5	433.6
1930	69.1	1.8	90.9	116.4	47.6	39.6	14.7	52.3	55.7	32.0	-	4.6	525.2
1931	4.1	16.8	35.6	55.4	105.6	33.9	121.4	179.8	57.4	34.1	-	-	644.1
1932	0.5	-	63.3	12.5	33.5	17.0	35.8	139.7	40.9	25.9	-	19.1	388.2
1933	6.9	-	-	9.9	56.1	92.2	22.9	57.9	60.2	9.4	-	-	315.5
1934	0.8	0.5	20.8	9.7	49.0	107.8	76.7	59.2	58.4	1.0	-	-	384.9
1935	-	-	-	54.1	103.9	47.5	17.8	77.5	125.2	2.0	32.4	1.5	463.9
1936	-	118.1	19.1	31.0	73.7	43.4	49.7	67.8	86.4	-	-	-	489.2
1937	11.2	0.2	86.2	37.3	66.0	74.4	34.1	75.1	48.8	6.1	13.2	-	452.6
1938	0.5	-	-	5.3	52.8	45.2	45.7	79.8	40.1	37.3	-	1..	308.0
1939													509.7
1944	-	-	12.3	3.9	59.7	72.3	40.7	79.6	34.5	-	2.8	-	310.1
1945	-	-	-	-	71.0	53.9	35.9	92.7	81.9	0.4	30..	-	366.1
1946	0.7	-	-	108.5	30.1	79.8	43.1	78.4	21.2	46.4	4..	-	432.7
1947	-	-	91.1	56.9	14.7	64.3	58.9	116.6	99.7	-	-	-	841..
1948	-	2.2	10.3	0.5	32.2	34.8	29.8	30.5	84.5	65.1	-	-	406.0
1949	1.2	1.1	-	0.1	48.2	32.0	11.2	97.9	20.3	9..	..		...
1950	-	-	-	1..	54.3	66.7	29.2	98.4	135.5	-	-	-	381.
1951	-	-	187.0	37.4	120.6	199.2	37.1	14.4	27.6	44.	-		687.4
1952	-	-	-	105.5	3.6	30.1	11.3	84.2	17.0	3.8	-	-	403..
1953	-	-	-	42.2	51..	50.4	51..	127.9	56.7	33.7			4..

M RAINFALL

STATION : HARGEYSA airport

Months	J	F	M	A	M	J	A	S	O	N	D	YEAR
1921				21.8	57.4		88.3	78.0	1	-	9.4	396.0
1922	-	-	21.6	17.3	109.7		27.4	60.2		-	-	388.1
1923	-	37.8	10.2	171.7	10.7		42.4	41.4		7.6	6.1	428.3
1924	-	13.5	5.3	39.6	81.8	1	95.8	51.6	1	-	-	458.9
1925	0.2	-	6.8	19.6	49.3		97.5	47.0	1	27.1	-	416.2
1926	9.4	37.9	44.5	188.7	115.1		128.0	66.2	58	72.4	-	810.0
1927	0.2	0.2	-	65.0	108.8		62.0	47.8		3.3	-	370.4
1928	-	-	-	45.9	78.5		36.1	16.8	-	45.9	2.3	316.2
1929	-	-	-	90.7	67.1		56.1	74.4	1	3.6	1.5	433.6
1930	69.4	1.8	90.9	116.4	47.8		52.3	55.7	2	-	4.6	525.2
1931	4.1	16.8	35.6	55.4	105.6		179.8	57.4	2	-	-	644.1
1932	0.5	-	63.3	12.5	33.5		139.7	40.9	2	-	19.1	388.2
1933	6.9	-	-	9.9	56.1		57.9	60.2		-	-	315.5
1934	0.8	0.5	20.9	9.7	49.0	1	59.2	58.4		-	-	389.9
1935	-	-	-	54.1	103.9		77.5	125.2	2	22.4	13.5	463.9
1936	-	118.1	19.1	31.0	73.7		67.8	86.4		-	-	489.2
1937	11.2	0.2	86.2	37.3	66.0		75.1	48.8		13.2	-	452.6
1938	0.5	-	-	5.5	52.8		79.8	40.1	3	-	1.3	308.0
1939												599.7
1944	-	-	12.2	3.9	59.7		79.6	36.8		6.8	0.3	310.0
1945	-	-	-	-	71.0		92.7	81.9		70.3	-	356.1
1946	0.7	-	-	128.5	30.1		78.4	21.2	4	4.5	-	432.7
1947	-	-	91.1	95.5	14.7		116.6	99.7		-	-	841.4
1948	-	2.2	10.3	80.5	33.3		30.5	84.9		3.8	-	406.0
1949	1.2	1.1	-	0.1	43.2		97.9	80.3		8.0	11.6	377.4
1950	-	-	-	1.1	54.9		98.4	135.5		-	-	381.8
1951	-	-	187.8	37.4	120.6		14.4	27.6		-	-	697.4
1952	-	-	-	105.5	3.6		84.2	17.0		-	-	298.9
1953	-	-	-	42.2	51.0		127.9	56.7	7	-	4.0	116.9

MONTHLY RAINFALL

STATION : CEEL GAAL

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1945	-	3.8	-	-	1.0	0.2	-	-	17.3	3.8	11.9	3.0	41.0
1946	-	-	-	36.8	5.1	-	-	10.2	-	-	2.5	-	[illegible]
1947	-	5.6	5.3	-	24.1	-	-	7.6	-	-	27.4	2.5	72.5
1948	5.1	0.8	-	-	-	-	-	2.0	5.1	3.3	-	3.3	19.6
1949	13.5	4.8	12.7	-	0.5	-	1.5	9.4	2.5	1.5	52.6	76.0	169.0
1950	55.9	21.6	-	-	-	-	36.8	11.2	-	1.5	-	-	127.0
1951													
1952													
1953													
1954													
1955													
1956													
1957													
1980	-	-	-	-	-	-	0.8	6.4	2.8	22.0	4.4		36.4

MONTHLY RAINFALL

STATION : GEBILEY

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1922	0	1.0	6.9	34.8	40.9	28.2	87.4	164.6	102.4	4.3	0	0	470.5
1923		0	0	124.0	38.9	87.6	83.6	83.8	65.0	41.9	22.9	0	547.7
1944	0	0	86.9	31.6	18.5	57.4	41.9	28.7	63.7	0	0	0	330.7
1945	0	0	0	0	86.4	168.7	46.8	127.8	50.8	0	45.5	0	526.0
1946	0	0	0	88.1	40.6	46.2	88.1	121.2	23.4	53.5	0	0	461.1
1947	0	0	103.4	22.6	7.6	43.7	43.2	103.4	109.2	0	17.8	0	450.9
1948	10.9	26.7	18.5	36.1	38.6	83.3	46.2	41.1	37.0	18.5	0	0	356.9
1949	0	0	0.8	5.1	170.4	19.8	41.4	139.5	28.2	21.6	46.5	16.8	490.1
1950	5.3	0	0	0	73.2	51.0	152.9	160.3	86.6	0	0	0	529.3
1951													
1952													
1953													
1954													
1955													
1956													
1956													
1957	0	29.0	24.2	124.5	0	20.6	119.4	39.1	15.2	35.1	0	0	407.0
1958	7.6	8.6	4.3	57.0	7.6	34.6	81.6	108.0	50.3	0	0	0	359.6
1959	2.5	0	0	1.0	46.7	19.6	119.1						
1960													
1961													
1962													
1963													
1964													
1965								90.7	17.0	10.2	19.0	0	
1966	0	0	38.0	69.0	74.7	33.6	67.1	28.0	62.0	0	0	0	372.4
1967													
1968													

MONTHLY RAINFALL

STATION : GEBILEY - Continued

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1969	0	0	53.4	89.6				81.1	75.5				
1970													
1971	0	0	0	71.3	70.7	53.4	59.6	65.1	78.7	9.6	19.1	16.5	444.0
1972	0	16.0	30.2	141.8	65.5	28.6	49.9	24.6	59.7	0	0	0	416.3
1973	0	0	0	31.7	98.1	56.1	51.2	98.7	76.8	1.3	0	6.9	420.8
1974	0	0	89.8	13.0	61.4	43.6	136.1	46.0	80.1	0	0	0	470.0
1975													
1976													
1977													
1978													
1979													
1980	0	0	0	0	33.0			174.0	95.0	70.0			

MONTHLY RAINFALL

STATION : GARDI GAADIR

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1945	1.5	0	0	0	4.3	1.0	19.1	121.1	111.6	0	7.6	0	266.2
1946	0	0	76.2	101.6	5.1	0	58.4	43.2	43.2	0	15.0	0	342.7
1947	0	36.8	54.6	0	0	22.9	0	73.7	50.8	0	21.8	0	260.6
1948	2.0	47.5	0	91.9	63.5	0	0	22.9	9.4	31.8	0	0	269.0
1949	0	0	0	0	4.8	19.6	40.1	28.7	35.7	0	76.2	0	204.5
1980	0	0	0	0	2.0	0	19.0	47.0	23.0	22.0	0	0	113.0

STATION : BOWR

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1944	0	0	22.9	48.5	5.8	7.6	12.7	40.6	38.6	0	0	0	174.7
1945	0	0	0	14.2	15.0	7.9	41.7	85.3	134.4	7.o	13.2	0	319.3
1946	0	0	8.4	115.3	40.4	0	36.2	70.9	51.9	9.7	0	0	363.3
1947	0	18.8	155.5	95.8	13.7	2.0	26.4	53.1	43.2	0	32.2	2.0	442.8
1948	1.3	35.4	0	74.9	67.8	19.8	11.9	4.6	37.6	38.9	0	0	292.2
1949	0	0	1.3	0	48.3	22.6	63.0	44.3	47.2	18.8	156.5	18.0	420.0
1950	3.0	3.8	22.1	40.9	25.6	9.9	22.4	86.2	31.9	9.1	0	0	253.8
1980	0	0	0	2.2	45.0	1.3	27.0	55.0	47.4	30.0	11.6	0	220.0

MONTHLY RAINFALL

STATION : BOORAMA

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1924							41.0	133.4	19.6	38.1	0	1.3	
1925	0	13.7	25.1	48.6	1-	49.7	120.8	167.6	76.0	27.4	42.4	0	590.8
1926	8.6	28.4	47.5	91.7	130.-	41.9	46.3	114.9	36.3	24.1	54.9	0	705.7
1927	0	2.5	0	150.9	47.-	35.6	77.5	66.3	113.5	9.4	0	0	502.7
1928	0	0	0	58.9	49.3	22.8	60.7	125.2	9.7	0	79.8	0	406.1
1929	0	0	15.8	23.9	109.	63.5	75.7	71.4	57.4	0	0	0	417.1
1930	97.0	0	60.7	86.4	20.-	78.7	45.0	104.1	58.7	5.8	0	6.4	572.8
1931	20.3	1.5	31.5	110.7	57.-	12.2	72.9	130.0	61.2	16.3	0	0	514.0
1932	0	0	221.5	63.2	32.2	17.8	67.4	162.0	72.4	0	0	23.9	660.1
1933	4.6	0	1.3	33.8	14.-	22.2	76.5	137.9	95.0	13.2	0	0	404.0
1934	0	0	5.1	32.0	32.-	39.6	99.1	113.8	35.8	0	49.0	0	466.7
1935	0	0	0	159.3	179.-	87.1	7.1	143.0	70.6	4.3	10.7	3.6	660.2
1936	74.4	180.8	93.0	61.0	11.4	26.3	38.2	109.2	57.4	4.6	0	0	676.3
1937	0	49.3	117.4	29.7	47.3	36.7	39.8	164.3	95.2	1.0	30.7	0	641.6
1938	12.7	0	10.9	20.6	49.2	15.5	43.2	76.0	80.8	19.8	0	0	346.7
1939													441.7
1944													501.5
1947	0	23.6	106.2	103.4	111.-	20.2	51.6	66.5	71.9	0	19.1	0	574.4
1948	42.7	20.6	3.6	119.4	7.-	19.2	43.7	33.5	78.3	31.8	3.0	0	403.3
1949	0	0	6.1	4.1	-	44.7	49.6	46.0	101.1	8.1	55.7	15.0	500.3
1950	14.2	0	0	19.3	14.-	38.1	74.9	123.0	124.7	0	0	0	436.7
1951													389.0
1952													392.5
1953													585.5
1954	0	0	80.0	81.0		79.	111.0	91.6	183.0	10.5	0	0	537.0
1955	3.0	0	0	30.5	-	12.-	-	98.0	74.0	12.5	0	0	364.0
1956													317.0
1957													325.0

MONTHLY RAINFALL

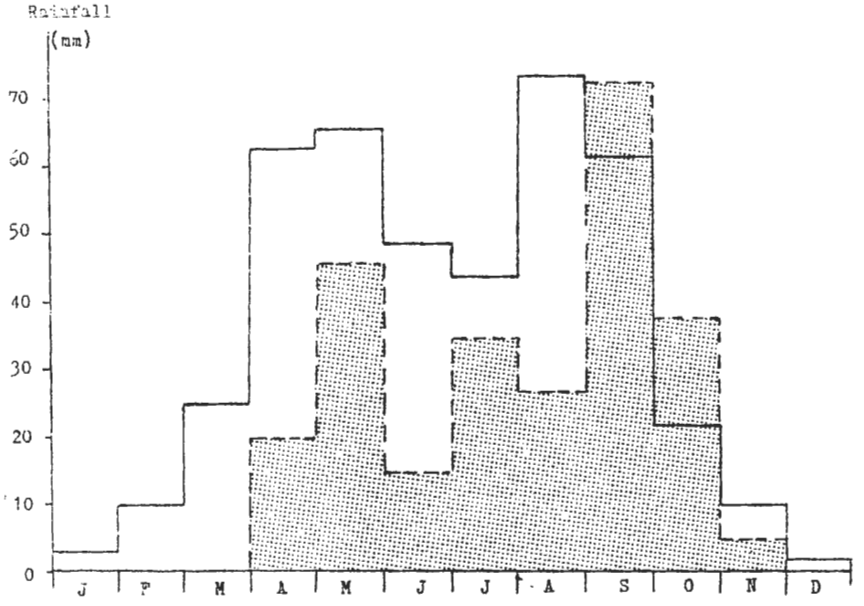
STATION : BOORAMA - Continued

Months	J	F	M	A	M	J	J	A	S	O	N	D	YEAR
1958													
1959													311.0
1960													713.0
1961													864.0
1967	0	0	13.2	33.1	34.2	14.5	126.6	186.7	80.4	39.6	36.3	0	564.6
1968	0	103.5	0.1	134.0	30.5	75.0	54.4	106.9	73.0	0	1.0	1.0	579.4
1969	0	77.5	23.5	77.5	45.5	18.9	74.4	123.0	20.9	7.5	17.0	0	485.7
1970	0	0	36.0	43.5	1.0	4.0	129.0	140.5	44.5	4.0	0	0	402.5
1971	0	0	35.8	120.0	76.4	83.0	77.0	103.0	92.5	2.0	27.0	1.5	608.2
1972	0	20.2	53.5	109.5	97.0	17.0	49.0	83.5	63.4	12.0	0	0	505.2
1973	4.0	0	0	104.0	59.5	35.5	72.5	100.5	47.0	19.0	0	0	442.0
1974	0	0	116.0	0	55.0	67.0	84.0	92.5	53.5	1.0	0	0	469.0
1975	0	5.5	38.0	146.0	0	35.0	47.0	132.5	105.5	14.0	0	0	523.5
1976	0	0	1.0	107.5	54.0	27.0	109.0	131.0	58.0	29.0	0	0	516.5
1977	0	8.0	14.0	69.5	54.0		71.0	126.0	46.0	40.5	0	0	429.0
1978	0	146.0	0	9.0	6.0	28.0	100.0	89.0	218.0	39.0	0	0	635.0
1979	74.0	0	74.0	78.0	146.0	39.0	60.0	107.0	72.0	9.0	0	0	659.0
1980	0	0	0	30.5	26.0	10.0	101.0	117.0	66.0				

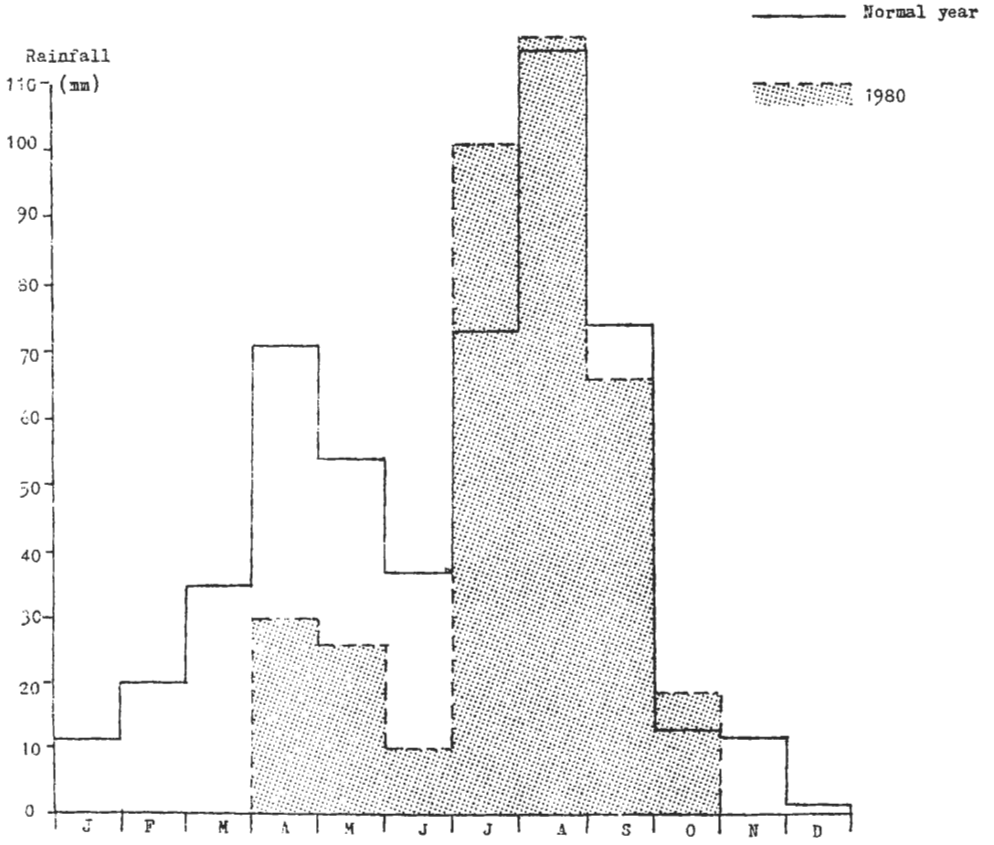
Fig. 3

COMPARISON BETWEEN NORMAL RAINFALL
AND 1980 RAINFALL

HARGEYSA



BOORAMA



A comparison of the rainfall read-out sheets for Waraqadhigta and Qabri Baxar, which are just 15 km apart, did not reveal any movement in the centre of gravity of the storms. They would appear to be of the stationary type, as in Yemen.

3.3.2 Distribution over time

The study of downpours using the recording rain-gauges and the ordinary in Hargeysa town which could be read minute by minute, showed that 90 % of storm showers occur between 16.00 and 19.00, half the rain falling in 10 minutes. 2/3 in 20 minutes and 95 % in 1 hour. There are practically never two heavy showers the same day.

3.3.3 Intensity of downpours

There is not enough data to be able to draw intensity-duration frequency curves but, from observations made, it is nevertheless possible to give an idea of plausible values.

The best results are provided by the direct reading rain-gauge in Hargeysa town, since the time scale cannot be precisely determined from the available monthly recording gauges. It should also be noted that the recording rain-gauges installed in low rainfall areas, registered a smaller number of downpours which were also smaller in volume, but for March 1981 as will be seen further on.

Details of this analysis of downpours may be found in the appendix (pages 22 to 28), the diagrams being kept in Hargeysa.

Hargeysa

- I = 102 mm/h for 5 minutes
- I = 87 mm/h for 10 minutes
- I = 74 mm/h for 15 minutes
- I = 62 mm/h for 20 minutes
- I = 50 mm/h for 30 minutes
- I = 27 mm/h for 80 minutes

Bown

Rainfall seems more regular here; the highest intensity was 38 mm/h.

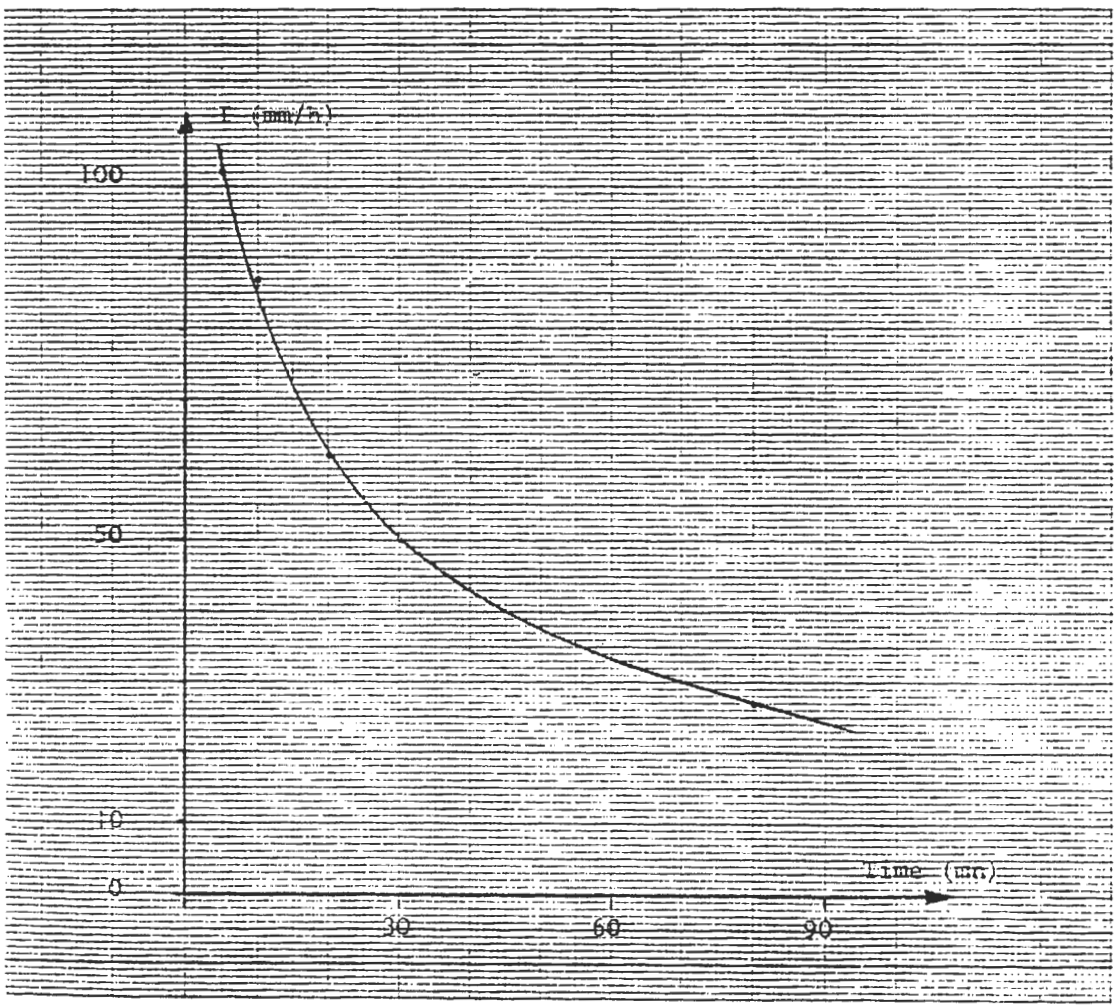
Waraqadhigta

- I max = 70 mm/h for 20 minutes
- I = 38 mm/h for 30 minutes

Fig. 4

Intensity - duration curve

Hargeisa 1980



Qabri Baxar

- I = 23 mm/h for 60 minutes

Ceel Gaal

- I = 48 mm/h for 5 minutes
- I = 31 mm/h for 10 minutes
- I = 12 mm/h for 30 minutes

Berbera - The old reports gave the following intensities:

-	10 April 1909	31.8 mm in 45 min., that is	I = 42 mm/h
-	10 April 1918	22.1 mm in 90 min.,	I = 15 mm/h
-	15 April 1918	14.5 mm in 75 min.,	I = 11 mm/h
-	15 November 1918	5.3 mm in 15 min.,	I = 21 mm/h
-	29 November 1920	47.5 mm in 2 1/2 h.,	I = 19 mm/h
-	16 January 1926	38.1 mm in 2 1/2 h.,	I = 15 mm/h
-	8 April 1935	59.7 mm in 5 1/2 h.,	I = 11 mm/h

Unfortunately, no observation of intensity was made for the exceptional downpour of 132 mm on 18 march 1910. The original document consulted at Braknell only contained an erasure whereby 5.2 inches was changed to 0.52 inches. This correction would seem to be an error, as will be seen later

The graph in figure 4 which is valid for the year 1980, probably fixes the lowest limits for intensity:

. Time (min.)	5	10	20	30	45	60	90
. Intensity (mm/h)	102	85	62	50	40	35	25

3.3.4 Statistical analysis of 24 hour rainfall

An analysis was made of the four stations with a sufficiently long observation period: Saylac, Berbera, Hargeysa and Boorama. Fitting according to Gumbel's law is shown in Figure 5. The points for Boorama and Hargeysa have been represented as a single curve. Likewise, Saylac and Berbera are amalgamated at first before dividing at higher frequencies.

The curves for Berbera and Hargeysa/Boorama exhibit a sudden break at return periods of 10 and 15 years respectively. It would thus appear that rainfall is governed by two laws, the first generating moderate precipitation and the second exceptional downpours. The curve for Saylac is a little different, the break appearing earlier, but the gradient is apparently the same as for Berbera. For Hargeysa and Boorama, on the other hand, the gradient after the break would seem gentler.

Errors in measurement should be ruled out as an explanation when confronted with exceptional records such as 132 mm at Berbera in March 1910 and 100 mm at Hargeysa in April 1963 because these are not isolated cases. In fact, C.F. Hemming mentions an exceptional storm shower near Bulhar on 16 November 1961 when precipitation must have exceeded 150 mm because the rain-gauge overflowed (unfortunately no other record of a rain-gauge at this spot was found). In addition, the fitting curve for Saylac is very clear, comprising 4 points which cannot all be errors. Finally mention should be made of the exceptional rains which affected the entire study area in March 1981. The table on page 21 of the appendix indicates the daily values given to the Sogreah team. From this data, the following values were retained:

-	March 2d	Waraqadhigta	136 mm
-	March 16th	Hargeysa	45 mm
-	March 17th	Bown	42 mm
-	March 18th	Geddeeble	77 mm
-	March 19th	Illinta Dexhe	35 mm
-		Qabri Baxar	73 mm
-		Ceel Gaal	191 mm
-	March 25th	Arabsiyo	64 mm

Two remarks may be made concerning these figures:

- While it is reasonable to speak of a rainy period from 14 to 19 March 1981, the heaviest downpours nevertheless did not all occur on the same day, thus confirming the independent nature of storms in this area;

- The coast, and Ceel Gaal in particular, received exceptionally heavy rainfall. If the statistical analysis made for Saylac is assumed to apply to Ceel Gaal, then this rainfall of 191 mm would represent a return period of 80 Years.

The 215 mm which fell in Djibouti in the space of 48 hours must also be noted.

No information came from Berbera.

These heavy rainfall are undoubtedly a cyclonic phenomenon mainly affecting the coast. Such storms seem to occur most commonly in March/April (November at Bulhar is exceptional) and are thus connected with the monsoon from the north east. They probably do not cross easily the mountain barrier but the storm in Hargeysa in April 1963 may have been of this origin. Unfortunately, there is no information on the trajectory of cyclones of this type or on their extent, but it can be assumed that they produce high intensity rainfall.

fig. 5

24-HOUR RAINFALL ANALYSIS

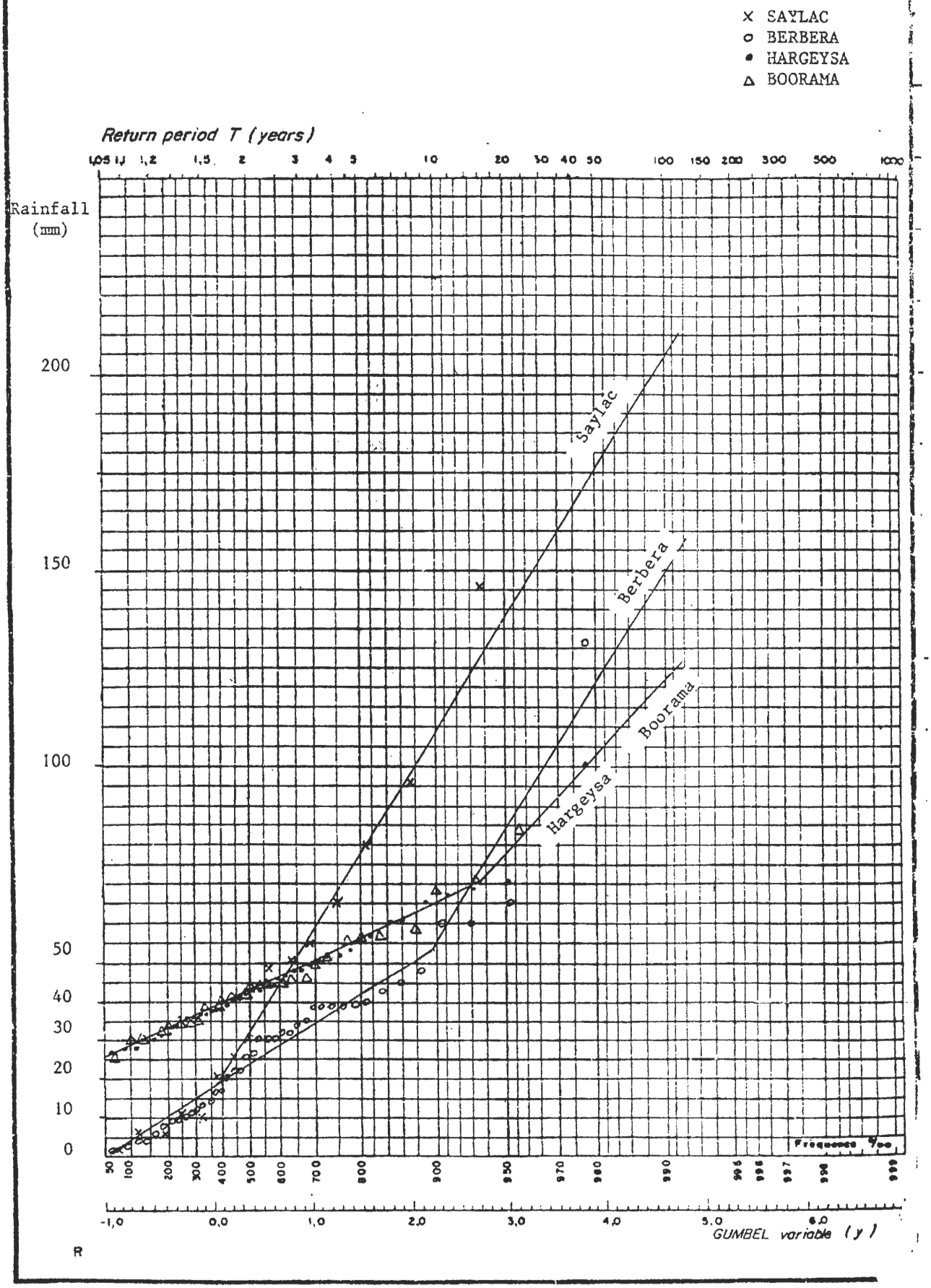


Table 6

PROBABILITY OF MAXIMUM ANNUAL 24-HOUR RAINFALL

Station	Return period (years)					
	2	5	10	20	50	100
Hargeysa and Boorama	40	55	65	75	100	120
Berbera	25	40	55	85	120	150
Saylac	30	80	110	135	175	205

3.3.5 Rainfall over a threshold, Po

A downpour only becomes efficient for irrigation or as runoff when it exceeds a certain threshold, Po. The following tables show the results of calculations of average quantities of monthly and annual rainfall above various thresholds as well as the number of downpours corresponding to these same thersholds:

Table 7

AVERAGE RAINFALL EXCEEDING THRESHOLD, Po

Station		J	F	M	A	M	J	J	A	S	O	N	D	Year
Hargeysa	Po = 8 mm	0.8	5.9	13.2	41.3	26.1	18.8	11.8	26.6	22.8	10.8	4.8	0	183
	Po = 10 mm	0.6	5.3	11.6	36.2	22.1	14.4	9.3	21.1	18.2	9.1	4.4	0	152
	Po = 15 mm	0.3	4.0	8.5	27.0	14.2	9.2	5.1	12.9	11.4	6.2	3.2	0	102
Boorama	Po = 8 mm	2.1	10.5	14.3	37.4	21.5	11.6	27.9	47.1	30.9	6.2	1.2	0	211
	Po = 10 mm	1.6	8.6	12.2	32.6	18.0	9.7	22.2	37.0	26.0	5.5	0.9	0	174
	Po = 15 mm	0.6	6.2	8.2	22.5	11.5	6.4	11.5	19.4	17.8	2.8	0.4	0	107
Berbera	Po = 10 mm	2.7	2.5	6.6	9.1	5.4	0.4	0.3	0.2	0.5	1.0	1.8	1.3	32
	Po = 15 mm	1.5	1.4	4.1	5.3	3.2	0.2	0.1	0	0.1	0.5	1.4	0.8	19

Table 8

AVERAGE NUMBER OF DOWNPOURS EXCEEDING THRESHOLD, Po

Station		J	F	M	A	M	J	J	A	S	O	N	D	Year
Hargeysa	Po = 8 mm	0.1	0.3	0.8	2.4	2.1	1.8	1.7	3.0	2.3	1.0	0.3	0	16
	Po = 10 mm	0.1	0.3	0.7	2.1	1.8	1.3	1.1	2.3	2.0	0.7	0.3	0	13
	Po = 15 mm	0	0.2	0.5	1.6	1.2	0.9	0.6	1.2	1.0	0.5	0.2	0	8
Boorama	Po = 8 mm	0.2	0.9	1.1	2.6	1.9	1.0	3.0	5.0	2.7	0.4	0.2	0	19
	Po = 10 mm	0.2	0.8	0.9	2.3	1.6	0.8	2.6	4.4	2.2	0.4	0.15	0	16
	Po = 15 mm	0.1	0.3	0.3	1.6	0.9	0.5	1.5	2.6	1.3	0.4	0.1	0	10
Berbera	Po = 10 mm	0.14	0.12	0.24	0.38	0.26	0.02	0.07	0.05	0.07	0.10	0.07	0.12	1.6
	Po = 15 mm	0.10	0.12	0.19	0.24	0.17	0.02	0.02	0.02	0.05	0.07	0.07	0.10	1.2

4. OTHER CLIMATIC FACTORS

4.1 TEMPERATURE AND HUMIDITY

Tables 9, 10 and 11 indicate average monthly and annual figures for temperature and relative humidity for the three best known stations of Berbera, Hargeysa and to a lesser extent Saylac. Average monthly values, year by year, are presented in the appendix on pages 131 to 164.

Tables 12 and 13 give monthly averages for temperature and humidity for the new stations. The tables giving daily temperature and humidity readings month by month for these stations are presented in the appendix on pages 165 to 189.

4.2 EVAPORATION

4.2.1 Old data

There is little precise information for evaporation. Some annual values were discovered for the period from 1957 to 1964 but there was no indication of the way in which they had been obtained .

ANNUAL EVAPORATION (mm)									
Year	1957	1958	1959	1960	1961	1962	1963	1964	Mean
Hargeysa	3173	2869		3445	3246	3301			3207
Tog Wajale					2075	2985	2464		2508
Silil (Ceel Gaal)	3424	2455	3144	1595	4133	2804	1244	3617	2808

Evaporation is a factor which is unlikely to vary from one year to the next, and this is well demonstrated by the figures for five years in Hargeysa. On the other hand, the differences noted for Ceel Gaal are difficult to explain. It is also abnormal that evaporation is higher in Hargeysa than in Tog Wajale and Ceel Gaal.

In the report entitled "Hargeysa Water Supply" by H. Humphreys, there are figures for evaporation measured with a weather bureau Class A type and a Colorado buried type device at Dagahkureh (50 km east of Hargeysa). The results are quite close* and the average for the two types of measuring device gave 2353 mm for the year. It would thus appear that the figure of 3207 mm mentioned above for Hargeysa is excessive.

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* Although a class A pan gives higher values than a Colorado pan on a given location.

ELEMENT OF CLIMATE

STATION : HARGEYSA MEAN : Year

Table 9

		J	F	M	A	M	J	J	A	S	O	N	D	Mean
Temperature (°C)	Maximum	28.8	29.8	31.3	31.4	33.0	32.9	32.3	31.8	31.7	30.4	26.56	27.3	30.8
	Minimum	10.0	11.0	12.9	14.8	16.3	16.8	16.7	16.9	16.8	13.4	12.2	10.7	14.0
	Lowest maximum	21.1	23.2	25.1	26.3	27.6	28.1	26.5	26.1	27.8	26.0	23.2	21.5	25.2
	Highest minimum	17.0	16.4	18.5	19.7	19.7	19.3	19.2	19.3	19.5	18.7	17.0	1c.3	18.4
	Mean	19.8	21.1	23.5	24.1	25.2	25.0	24.3	24.2	24.7	27.7	22.7	21.2	23.0
	Mean maximum	25.1	27.1	24.5	29.4	30.4	30.8	29.8	29.7	30.3	28.6	25.7	24.0	28.0
	Mean minimum	13.7	14.7	17.0	18.4	19.7	18.9	18.8	19.1	18.7	16.3	15.1	14.0	17.0
Humidity (%)	Maximum	99.2	98.1	98.7	97.5	94.2	88.8	89.0	88.5	87.3	95.5	98.6	97.8	94.4
	Minimum	17.1	15.3	11.9	16.2	14.2	16.8	23.9	24.3	20.0	13.6	14.9	22.9	17.6
	Mean	70.4	58.4	59.2	51.8	53.4	51.6	51.4	51.4	52.1	50.8	57.0	64.8	56.0
Prevailing wind		N	N	NE	NE	S	SW	SW	SW	SW	NE	N	N	

ELEMENT OF CLIMATE

-

STATION : BERBERA

MEAN : Year

Table 10

		J	F	M	A	M	J	J	A	S	O	N	D	Mean
Temperature (°C)	Maximum	30.4	30.4	31.6	33.9	40.1	42.7	42.4	40.9	41.5	36.0	32.6	31.3	36.2
	Minimum	18.6	19.7	21.0	23.1	25.0	27.1	27.9	27.8	25.6	22.1	20.2	18.8	23.1
	Lowest maximum	27.6	28.1	28.9	30.0	31.7	36.7	37.7	37.4	34.1	31.0	29.2	27.8	31.7
	Highest minimum	23.6	24.6	25.7	27.3	29.8	33.1	33.3	32.6	31.4	28.0	25.2	24.3	28.2
	Mean	25.5	26.1	27.0	28.8	32.4	35.0	35.3	35.0	33.5	29.4	27.2	25.8	30.0
	Mean maximum	28.8	29.1	30.0	31.7	34.9	40.4	40.4	39.8	37.9	33.1	30.8	29.7	33.9
	Mean minimum	21.3	22.1	23.5	25.3	27.3	30.3	31.0	30.4	28.6	25.0	22.7	21.3	25.7
Humidity (%)	Maximum	90.8	90.5	91.7	92.1	93.0	83.5	77.7	75.1	86.3	89.3	89.7	89.9	87.5
	Minimum	53.8	56.5	59.7	58.8	34.7	24.9	26.4	27.4	29.6	45.8	51.2	52.0	43.4
	Mean	73.8	74.7	77.0	77.6	70.4	49.3	45.5	47.4	55.6	69.4	70.0	72.4	65.3
Prevailing wind		NE	NE	NE	NE	NE	SW	SW	SW	SW	NE	NE	NE	NE

ELEMENT OF CLIMATE

STATION : SAYLAC

MEAN : Year

Table 11

		J	F	M	A	M	J	J	A	S	O	N	D	Mean
Temperature (°C)	Maximum	30.0	29.9	32.1	33.7	36.9	39.9	40.7	40.4	38.3	34.4	32.0	30.2	34.9
	Minimum	20.1	20.5	21.4	28.6	24.4	25.4	27.4	25.2	25.4	23.1	21.4	19.8	23.6
	Lowest maximum	25.0	24.5	26.0	27.5	28.5	29.5	30.5	30.5	30.0	30.0	27.0	26.0	27.9
	Highest minimum	27.0	27.0	26.0	30.0	32.0	33.5	33.5	33.5	33.5	31.5	29.5	22.0	29.9
	Mean	22.5	23.5	26.5	27.5	27.5	31.0	32.0	31.5	30.5	27.5	27.0	26.5	27.8
	Mean maximum	28.6	28.9	30.6	31.9	34.4	34.9	38.6	37.7	35.1	32.1	30.2	29.0	32.7
	Mean minimum	22.2	23.3	24.4	25.2	26.3	27.9	29.3	28.9	27.9	25.3	24.0	22.2	25.6
Humidity (%)	Maximum													
	Minimum													
	Mean	80.5	77.5	82.5	81.5	89.0	80.5	56.0	62.0	68.5	77.0	72.0	76.5	73.6
Prevailing wind														

TEMPERATURE (1980)

Table 12

			M	J	J	A	S	O	N
Gabri Baxar	Mean of	Maximum	34.4	40.7	40.5	39.6	37.0	31.6	24.1
		Minimum	23.1	29.3	30.4	29.4	26.2	21.8	12.7
		Mean	28.8	37.4	35.4	34.5	31.6	26.7	18.4
	Highest maximum		37.0	43.0	43.0	42.0	41.0	36.0	29.0
	Lowest minimum		21.0	24.0	27.0	28.0	21.0	17.0	8.0
Ceel Gaal	Mean of	Maximum	36.2	42.4	43.7	42.6	38.5	36.5	
		Minimum	26.4	29.9	31.3	30.8	27.6	23.5	
		Mean	31.3	36.2	37.5	36.7	32.9	26.8	
	Highest maximum		39.0	44.0	46.0	44.0	43.0	39.0	
	Lowest minimum		25.0	27.0	28.0	28.0	25.0	21.0	
Geddeeble	Mean of	Maximum	33.9	34.1	33.6	33.6	33.1	30.1	
		Minimum	20.7	21.9	21.7	21.5	21.9	14.9	
		Mean	27.3	28.0	27.6	27.6	27.5	22.5	
	Highest maximum		36.0	37.0	36.0	35.0	36.0	32.0	
	Lowest minimum		18.0	20.0	17.0	18.0	17.0	9.0	
Bown	Mean of	Maximum	30.2	32.6	30.4	29.3	29.5	26.4	
		Minimum	19.0	20.8	20.0	19.4	18.8	14.2	
		Mean	24.6	26.7	25.2	24.8	24.2	19.9	
	Highest maximum		32.0	34.0	32.0	32.0	31.0	29.0	
	Lowest minimum		16.0	20.0	18.0	17.0	17.0	11.0	

RELATIVE HUMIDITY (1980)

Table 13

			M	J	J	A	S	O	N
Qabri Baxar	Mean of	Maximum	92.6	62.0	55.6	55.2	82.9	96.5	91.4
		Minimum	35.4	26.0	28.9	28.0	41.5	42.5	45.2
		Mean	66.7	46.9	43.5	42.9	65.2	65.4	73.0
	Highest maximum		100.0	85.0	90.0	89.0	100.0	100.0	100.0
	Lowest minimum		10.0	15.0	20.0	14.0	26.0	22.0	26.0
Ceel Gaal	Mean of	Maximum	89.4	67.0	67.0	75.5	87.5	89.4	
		Minimum	38.2	24.3	28.8	33.6	44.7	42.6	
		Mean	69.8	48.3	49.0	56.6	70.2	70.8	
	Highest maximum		95.0	90.0	90.0	100.0	100.0	100.0	
	Lowest minimum		9.0	14.0	17.0	17.0	31.0	20.0	
Geddeeble	Mean of	Maximum	88.7	74.6	76.4	75.4	85.7	98.0	
		Minimum	23.7	28.8	37.6	35.6	29.1	19.0	
		Mean	62.2	54.8	58.3	56.4	59.7	64.9	
	Highest maximum		98.0	83.0	100.0	100.0	100.0	100.0	
	Lowest minimum		12.0	16.0	24.0	19.0	6.0	5.0	
Bown	Mean of	Maximum	90.7	81.1	76.6	79.1	89.2	89.5	
		Minimum	26.3	32.3	31.6	32.3	32.4	27.7	
		Mean	62.3	58.1	55.3	57.4	63.7	63.6	
	Highest maximum		99.0	89.0	99.0	99.0	100.0	100.0	
	Lowest minimum		6.0	20.0	14.0	19.0	19.0	14.0	

Monthly evaporation at Dagahkureh (mm)

	J	F	M	A	M	J	J	A	S	O	N	D	Year
Colorado	139	153	208	206	233	214	215	232	179	206	162	167	2318
Class A	161	169	211	213	220	207	214	241	138	205	176	180	2385
Mean	150	161	210	210	226	210	216	237	184	206	169	174	2353

4.2.2 Measurements made in 1980

A Colorado pan and a Class A pan were installed at the Geddeble experimental farm on 4 May 1980. Unfortunately, the station suffered from an acute lack of water. It was possible to fill one of the two pans, the Class A, but afterwards no water was able to be obtained for use in compensating evaporation. It was thus only possible to measure the initial stages of pan drying, with the following results:

6 May: -7.6 mm
7 to 10 May: -25.1 mm,
i.e., for 5 days, 32.7 mm representing a mean of 6.5 mm/day.

A very bold extrapolation would give a monthly figure of 203 mm, a value which is nevertheless close to the 220 mm found for Dagahkureh in May.

4.3 WIND

The extreme regularity of the monsoon cycles means that wind directions are well known. On the other hand, wind speed, which is of particular interest for agricultural studies, has so far only been measured on rare occasions and sometimes inaccurately.

4.3.1 Measuring instruments

Integrating anemometers

The most useful instrument for this type of study is a cup anemometer with a meter to register the total number of revolutions. It thus indicates the number of kilometers covered by the wind between two readings. Readings are generally made 2 or 3 times a day.

There was already an instrument of this type at Gacan Libaax and Sogreah installed four more at Geddeeble, Qabri Baxar, Ceel Gaal and Bown.

4.3.3 Average wind speeds

Average wind speed is the most useful information for the agronomist, for it is a basic factor in calculations of evapotranspiration. The following table brings together average monthly values for the six stations for which data is available:

AVERAGE WIND SPEEDS (m/s)

	J	F	M	A	M	J	J	A	S	O	N	D
Gacan Libaax	2.2	1.8	2.0	2.2	2.2	4.3	5.3	4.6	3.1	1.7	1.7	1.5
Geddeeble						3.5	3.8	4.0	2.2			
Qabri Bayar	2.7						3.8	3.3	2.6	2.4	2.6	2.5
Ceel Gaal	2.2						4.0	3.6	2.6	2.1	2.0	2.1
Bown	2.2						3.6	3.6	2.3	2.0	2.1	1.9
Hargeysa	7.1	6.6	6.5	6.4	6.6	8.8	10.6	9.4	7.1	6.0	7.1	7.5

The wind speeds indicated for Hargeysa are the mean values calculated over 9 years from 1966 to 1974, provided by the Meteorological Service of the Civil Aviation Department. It is immediately clear that the speeds given for Gacan Libaax and for the four new stations are homogeneous; average speeds from June to September are slightly higher at Gacan Libaax but this is quite normal given its exposed position at an altitude of 1719 m.

On the other hand, the speeds indicated for Hargeysa appear excessive. The most likely explanation is that they are not expressed in m/s as shown but in fact in knots (0.514 m/s), in which case the values should be roughly halved. Even so, the wind speeds for Hargeysa still remain higher than elsewhere. This could be due to the fact that they are calculated by taking the mean of the various spot observations made during the day but never at night. Bearing in mind the ratio of diurnal wind to noctural wind which is 1.25 on average, the average speeds calculated for Hargeysa become more comparable with those obtained for the other stations. It should also be mentioned that measurements at Hargeysa are not made at the same height above ground level.

Fortnightly wind recordings for Gacan Libaax are presented on page 191 of the appendix and daily recordings for Qabri Baxar, Ceel Gaal, Bown and Geddeeble on pages 192 to 195.

. Hand anemometers

These instruments are employed in the stations of the National Meteorological Office. They present the disadvantage of having to be orientated into the wind and of only giving wind speed at the time of measurement. In addition, the observer does not always stand in the best place.

. Recording anemometers

These instruments provide continuous information on wind speed. However, when the wind is in gusts, the recording is sometimes difficult to analyse and for this reason it is preferable to use such devices in conjunction with integrating anemometers.

The recording anemometer at Hargeysa airport is out of order. A very sensitive instrument giving daily recordings has been installed by Sogreah at Geddeeble. It requires no outside power source, providing its own current.

4.3.2 Instantaneous wind speed

The table on page 190 of the appendix gives daily values for maximum wind speed and the number of hours during which the wind exceeded 6 m/s and 0.5 m/s.

It can be seen that up to 5 September the mean of the maximum daily values is high, 11.2 m/s, and varies little, from 10 to 13 m/s. Thereafter, maximum values remain around 7 m/s.

Up to the same date of 5 September, which corresponds to the end of the south-west monsoon, the time during which the wind exceeds 6 m/s is long - 10 hours a day. It is reduced to 4 hours a day between 5 and 20 September and thereafter there is practically no more wind of this force.

Figure 6 shows daily wind distribution at the end of the rainy season. It can be seen that:

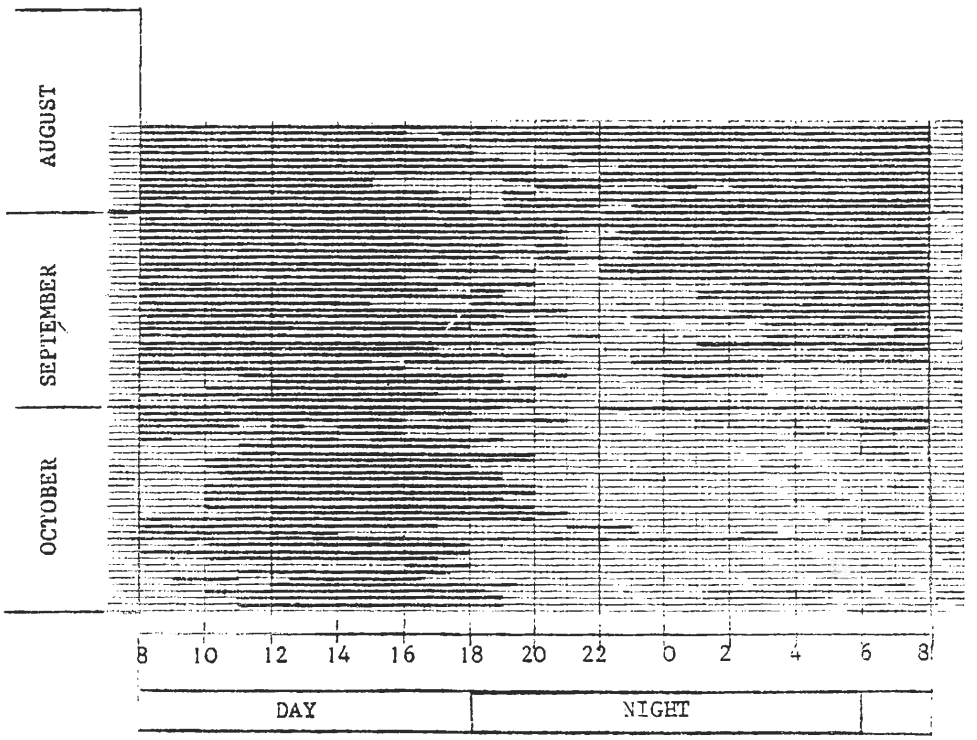
. wind is almost continuous until the first week of September;

. after the inversion of the monsoon, calm periods establish themselves progressively, firstly at night, and after the first week of October it is practically only windy during the day, starting at about 10.00 in general and ceasing almost completely at between 18.00 and 20.00.

Fig. 6

GEDDEEBLE

DAILY WIND DURATION



Lines indicate hours during which there was wind.

RAINFALL INTENSITY

STATION : HARGEYSA (town) - Continued YEAR : 1980

Date	Time		Duration (mim)	Rainfall (mm)	Intensity (mm/h)
	Beginning	End			
07/08	17.00			0.1	
13/08	17.00			0.2	
17/08	17.00	18.30	90	16.2	11
20/08	19.00			2.5	
24/08	19.00			0.5	
25/08	18.00			3.0	
27/08	18.30			23.8	
30/08	21.30	22.30	60	3.0	3
31/08	20.15	22.00		5.0	
04/09	17.00	18.00	60	5.5	6
07/09	18.00	19.00	60	1.0	1
08/09	18.30	19.30		6.0	6
09/09	18.00	20.00	120	17.0	9
11/09	18.00	22.00	60	3.5	4
17/09	17.00			0.5	
21/09	18.00	19.00	60	2.8	3
25/09	14.35	15.15		Tr	
	15.15	16.35	80	36.0	27
30/09	19.00			1.3	
02/10	13.10	13.30	20	11.0	33
03/10	19.00			1.5	
04/10	18.45	19.15	30	12.0	24
	19.15	19.45	30	4.0	8
	21.00			0.8	
20/10	18.26	18.30	4	6.0	90
	18.30	18.36	6	0.5	5
	18.36	18.42	6	2.0	20
	18.42	18.48	6	0.5	5
	18.56	19.10	14	6.0	26
	19.10	19.30	20	1.0	3
	23.00			1.0	
22/10	14.28	14.51	23	3.6	9
24/11	17.15	17.40	25	0.3	
25/11	14.45	15.15	30	7.0	14
	18.00			0.4	

RAINFALL INTENSITY

STATION : WARAQADHIGTA YEAR : 1980

Date	Time		Duration (mim)	Rainfall (mm)	Intensity (mm/h)
	Beginning	End			
29/04	14.40	15.10	30	18.8	38
	15.10	16.25	75	2.6	2
01/05	14.50	15.20	30	2.4	5
	15.20	15.40	20	2.8	38
	15.40	17.00	80	3.6	3
11/05	14.50	15.10	20	23.4	70
	15.10	15.30	20	1.0	3
06/07	11.10	11.25	15	1.2	5
12/07	16.00			0.6	
	17.05	17.20	15	6.4	26
	17.30			0.2	
25/07	17.50	17.55	5	1.2	14
26/07	15.45	16.05	20	0.6	2
	19.20	19.50	30	1.2	2
	20.35	21.10	35	2.4	4
01/08	21.30			0.6	
	23.10			0.2	
10/08	17.00	17.10	10	1.4	8
19/08	19.20			0.4	
	23.00			0.4	
28/08	18.15	18.20	5	1.0	12
29/08	16.30	17.20	50	10.6	13
30/08	18.40			0.6	
01/09	03.20	07.20	240	3.4	
09/09	17.35			0.2	
10/09	16.30	17.20	50	1.2	
24/09	09.00			0.2	
25/09	04.30			0.2	
	05.50			0.2	
29/09	07.20	08.20	60	7.2	7
20/10	20.20	21.00	40	2.2	3
	22.50	23.10	20	8.2	25
21/10	23.10	01.30	140	2.4	
22/10	03.00			0.2	
25/11	14.30	14.50	20	1.4	
26/11	05.00	08.20	200	3.6	

RAINFALL INTENSITY

STATION : QABRI-BAKAR YEAR : 1980

Date	Time		Duration (min)	Rainfall (mm)	Intensity (mm/h)
	Beginning	End			
16/04	09.10	09.30	20	0.4	
18/04	15.00	16.00	60	23.2	23
21/04	08.40	-	-	0.2	
01/05	15.20	15.30	10	0.6	4
24/07	19.50	19.55	5	1.0	12
25/07	16.05	16.10	5	0.6	7
26/07	17.00	17.40	40	1.6	
10/08	18.00	18.10	10	1.4	8
23/08	15.40	15.50	10	1.4	8
25/08	17.40			0.2	
01/09	03.10	03.30	20	4.4	13
	03.55	07.00		2.8	
08/09	03.20	03.30	10	0.6	4
	06.15	06.20	5	0.8	10
24/09	05.50	06.10	20	3.2	10
25/09	01.55	02.10	15	4.8	19
	02.10	02.20	10	0.2	1
28/09	03.00	14.00	60	11.0	11
	08.10	09.00	50	10.6	13
	10.50			0.2	
20/10	21.50	23.00	70	14.0	12
21/10	20.20			0.2	
26/11	06.40	06.55	15	2.4	10
	07.00	07.20	20	0.8	2

RAINFALL INTENSITY

STATION : CEEL GAAL YEAR : 1980

Date	Time		Duration (mim)	Rainfall (mm)	Intensity (mm/h)
	Beginning	End			
24/07	23.10			0.2	
26/07	17.25	17.35	10	0.6	4
11/08	23.30	24.00	30	6.2	12
	24.00	24.10		0.2	
07/09	10.00			1.2	
24/09	20.00	23.00		1.0	
27/09	07.25	17.35	10	0.6	4
06/10	02.50	03.00	10	3.6	22
20/10	02.00			0.2	
	02.10	02.20	10	5.2	31
	02.20	02.40	20	1.4	4
	22.10	22.40	30	6.0	12
	23.10	23.40	30	1.4	3
21/10	23.50	23.55	5	4.0	48
22/10	03.00			0.2	
25/11	09.50	09.55	5	2.2	26
26/11	07.50	07.55	5	0.6	7
	11.00	11.05	5	1.4	17
	11.35			0.2	

RAINFALL INTENSITY

STATION : BOWN YEAR : 1980

Date	Time		Duration (mim)	Rainfall (mm)	Intensity (mm/h)
	Beginning	End			
27/04	16.20	17.10	50	0.6	
28/04	12.40	12.50	10	1.6	10
30/04	12.20	12.50	30	1.0	2
01/05	13.10	13.50	40	20.6	31
	13.50	14.05	15	1.6	6
	17.00			0.2	
	19.00			0.2	
03/05	13.20			0.2	
	18.00			0.2	
04/05	15.50	15.55	5	0.8	10
05/05	06.00			0.2	
11/05	14.10	14.40	30	17.6	35
	14.40	14.55	15	1.0	4
	14.55	16.50	115	1.2	
4/05	02.30			0.2	
11/06	16.40	16.50	10	1.3	11
02/07	17.00	17.10	10	1.8	11
05/07	12.05	12.05	45	15.4	20
06/07	12.15	12.30	15	0.6	
11/07	10.50	11.05	15	1.0	11
	13.10	13.15	5	2.4	29
24/07	19.20			0.2	
	22.45			0.2	
25/07	0.30	0.40	10	1.6	10
	16.25	17.00	35	0.6	1
26/07	17.10	17.25	5	0.6	7
	21.00	21.20	20	0.8	2
	21.50	22.20	30	1.8	4
				0.2	
02/08	21.00			0.4	
04/08	20.00			0.4	
06/08	17.20	17.30	10	3.2	19
	19.30			0.2	
	20.00	20.10	10	2.0	6
10/08	16.20	17.00	40	25.6	38
	17.00	17.20	60	7.0	
	17.20	18.20		1.0	
11/08	08/10			0.2	

RAINFALL INTENSITY

STATION : BOWN - Continued YEAR : 1980

Date	Time		Duration (mim)	Rainfall (mm)	Intensity (mm/h)
	Beginning	End			
15/08	15.35	15.40	5	0.6	7
18/08	22.30	23.00	30	4.6	9
19/08	17.30			0.2	
20/08	15.40			0.2	
26/08	16.10	16.25	15	1.6	6
29/08	14.40	18.40	240	6.8	
30/08	10.20			0.2	
	22.40			0.6	
01/09	05.20	05.40	20	13.0	39
	05.40	06.00	20	0.8	
	12.00			0.2	
	17.00	17.40	40	0.8	
04/09	15.25	15.40	15	3.4	14
05/09	16.00	16.05	5	1.2	14
07/09	15.30			0.4	
08/09	04.30	05.10	40	3.2	
	05.30	07.00		2.8	
10/09	17.20	17.50	30	3.0	6
	18.30			0.2	
17/09	18.00			0.4	
22/09				18.0	
01/10	16.35	16.50	15	2.8	
	17.30	17.50	20	3.0	
02/10	16.00	16.05	5	0.6	7
03/10	13.20	14.00	40	4.0	6
04/10	07.00			0.2	
06/10	01.40			0.2	
	23.40			0.2	
07/10	03.55			0.2	
08/10	04.40			0.2	
	16.10	16.40	30	3.4	7
09/10	08.10			0.2	
20/10	18.40	19.30	50	7.6	9
	22.00	24.40	40	7.0	10
22/10	01.55			0.2	
	07.30			0.2	
23/10	07.20			0.2	
25/11	14.50	15.40	50	11.6	14

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1910

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3					5.1							
4												
5												
6												
7												
8												
9												
10												
11												
12												
13	0.5											
14												
15												
16												
17			12.7									
18			132.0				1.5					
19			2.0									
20												
21												
22												
23												
24												
25												
26								7.6				
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0.5	0	146.7	0	5.1	0	1.5	7.6	0	0	0	0
Annual total	161.4											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1911

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5												
6												
7												
8			0.5									
9												
10												
11												
12												
13												
14												
15												
16												
17												
18	5.0											
19			0.5									
20			15.2									
21											1.3	
22	3.8		25.6									
23												
24	1.3											
25												
26												
27												
28												
29	1.3	-										
30		-										
31		-		-		-			-		-	
Totals	11.4	0	41.8	0	0	0	0	0	0	0	1.3	0
Annual total	54.5											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1912

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5		4.1										
6												
7												
8												
9				38.1								
10												
11				17.8								
12												
13												
14												
15												
16												
17				0.8								
18				6.1								
19												
20												
21												
22												
23												
24												
25												
26												
27												2.5
28												10.2
29												
30		-										
31		-		-		-			-		-	
Totals	0	4.1	0	62.8	0	0	0	0	0	0	0	12.7
Annual total	79.6											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1913

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5												
6												
7	0.8											
8		1.5										
9												
10												
11												
12					38.4							
13												
14												
15												
16												
17												
18												
19												
20												
21		24.1										
22		0.8										
23												
24			17.8									
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0.8	26.4	17.8	0	38.4	0	0	0	0	0	0	0
Annual total	83.4											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1914

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3										0.2		
4												
5												
6												
7								0.5				
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20		9.7										
21		4.1										
22										0.2		
23					34.3				1.8			
24												
25										0.5		
26										15.2		
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	13.8	0	0	34.3	0	0	0.5	1.8	16.3	0	0
Annual total	66.7											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 19

Mois	J	F	M	A	M	J	J	A	S	D
1										
2										
3					0.8					
4										
5										
6										
7										
8										
9										
10										
11				1.0						
12										
13									4.	
14										
15										
16										
17										
18										
19										
20				1.5						
21										
22										
23				0.2						
24										
25				0.8						
26										
27				43.2						
28										
29		–								
30		–								
31		–		–		–			–	
Totals	0	0	0	46.7	0.8	0	0	0	4.	0
Annual total	51.8									

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1916

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1		0.5										
2		0.2							2.3			
3		0.2						1.8				
4												
5												
6												
7								4.3				
8												
9												
10												
11												
12												
13												
14			1.3									
15												
16												
17												
18												
19												
20												
21												
22		2.8										
23												
24		0.2										
25		1.3										
26		38.1					1.8					
27		1.3					10.4					
28												0.5
29	1.8											
30		-					3.3					
31		-		-		-			-		-	
Totals	1.8	44.6	1.3	0	0	0	15.5	6.1	2.3	0	0	0.5
Annual total	72.1											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1917

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4					1.8							
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15		0.2										
16												
17												
18				0.8								
19												
20				0.5								
21												
22				3.8		0.5	5.8					
23												
24												
25								0.5				
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0.2	0	5.1	1.8	0.5	5.8	0.5	0	0	0	0
Annual total	13.9											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1918

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					3.1							
2												
3	0.5											
4												
5												
6												
7												
8	0.8											
9												
10				22.1								
11												
12												
13												
14												
15				14.5							5.8	
16												
17												
18												
19												
20	0.8											
21												
22												
23												
24	0.2											
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-	1.3		-		-	
Totals	2.3	0	0	36.6	3.1	0	1.3	0	0	0	5.8	0
Annual total	49.1											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1919

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5		0.2		13.0								
6			1.0									
7												
8					4.3							
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27			0.5									
28			39.6									
29		–										
30		–										
31		–		–		–			–		–	
Totals	0	0.2	41.1	13.0	4.3	0	0	0	0	0	0	0
Annual total	58.6											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1920

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4				13.0								
5												
6								0.2				
7												
8					4.3							
9												
10												
11												
12		0.2										
13												
14												
15												
16												
17												
18									2.0			
19												
20												
21												
22				6.6								
23												
24												
25									1.0			
26												
27												
28												
29											47.5	
30		-										
31		-		-		-			-		-	0.5
Totals	0	0.2	0	19.6	4.3	0	0	0.2	3.0	0	47.5	0.5
Annual total	75.3											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1921

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1		1.0										
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13									17.3			
14												
15												
16												
17												
18		1.3										
19										13.5		
20												
21												
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-									1.3	
31		-		-		-			-		-	
Totals	0	2.3	0	0	0	0	0	0	17.3	13.5	1.3	0
Annual total	34.4											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1922

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2					8.1							
3												
4												
5												
6												
7												
8												5.6
9												
10												
11												
12												
13												
14								0.8				
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												0.2
26			4.8									
27								0.5				
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	C	0	4.8	0	8.1	0	0	1.3	0	0	0	5.8
Annual total	20.0											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1923

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4		2.8										
5		2.0										
6												
7												
8												2.5
9												
10												
11												
12												
13				34.8								
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24										1.3		
25										29.2		
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	4.8	0	34.8	0	0	0	0	0	30.5	0	2.5
Annual total	72.6											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1924

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4											1.3	
5												
6												
7	0.5											
8												
9												
10												
11												
12								7.1				
13												
14												
15												
16												
17												
18												
19												
20								12.0				
21												
22												
23												
24												1.5
25												
26												
27									2.5			
28												
29												
30		–										
31		–		–		–			–		–	
Totals	0.5	0	0	0	0	0	0	19.1	2.5	0	1.3	1.5
Annual total	24.9											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 19

Mois	J	F	M	A	M	J	J	A	N	D
1										
2		2.5								
3										
4				0.2						
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26									1.6	
27										
28										
29		-							4.0	
30		-								
31		-		-		-			-	
Totals	0	2.5	0	0.2	0	0	0	0	5.6	0
Annual total	13.9									

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1926

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					2.5							
2												
3												
4												
5		1.0			32.3							
6												
7						2.5						
8		0.5							0.5			
9		1.8		8.1								
10												
11					0.8							
12			2.0									
13												
14	1.5											
15	4.1		13.2		20.3							
16	38.1		2.3									
17	0.8										0.2	
18			16.5									
19			0.8									
20												
21			8.1									
22												
23												
24												
25							4.3					
26												
27												
28												
29		-									0.2	
30		-		3.6								
31		-		-		-			-		-	
Totals	44.5	3.3	42.9	11.7	55.9	2.5	4.3	0	0.5	0	0.4	0
Annual total	166.0											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1927

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1	0.2											
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12				2.5								
13												
14		2.0		15.0								
15				29.7								
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26	1.8											
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	2.0	2.0	0	47.2	0	0	0	0	0	0	0	0
Annual total	51.2											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1928

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1		1.3										
2												
3											16.8	
4												
5												
6												
7												
8												
9												
10								4.3				
11												3.8
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24											1.5	
25												
26												
27												
28												
29												
30		–										
31		–		–		–			–		–	
Totals	0	1.3	0	0	0	0	0	4.3	0	0	18.3	3.8
Annual total	27.7											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1929

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1	0.5											
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21											0.8	
22												
23												
24												
25				1.0								
26												
27						2.8						
28												
29		-										1.0
30		-										3.3
31		-		-		-			-		-	
Totals	0.5	0	0	1.0	0	2.8	0	0	0	0	0.8	4.3
Annual total	9.4											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1930

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												0.2
2												
3												
4												
5												
6												
7												
8												
9												
10			0.2									
11												
12												
13	4.1											
14												
15				30.2								
16												
17												
18												
19												
20												
21												
22												
23	5.8									21.8		
24	13.2									1.3		1.3
25	1.0									0.8		
26	26.4											
27	8.4											
28	2.8											
29		-										
30		-										
31		-		-		-			-		-	
Totals	61.7	0	0.2	30.2	0	0	0	0	0	23.9	0	1.5
Annual total	117.5											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1931

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3					0.5							
4					4.3							
5								0.5				
6					2.3							
7												
8												
9									11.2			
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21			0.5									
22												
23			1.8									
24		0.5										
25					14.5							
26												
27			0.2									
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0.5	2.5	0	21.6	0	0	0.5	11.2	0	0	0
Annual total	36.3											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1932

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3					14.5							
4												
5												
6												
7												
8												
9												
10												
11												
12	0.2											
13	0.2											
14												
15	0.2											
16												
17												
18												17.3
19			1.3					1.5				
20			0.5									
21												
22												
23								0.5				
24												
25												
26							19.6					
27												
28												
29												
30		-										
31		-		-		-			-		-	
Totals	0.6	0	1.8	0	14.5	0	19.6	2.0	0	0	0	17.3
Annual total	55.8											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1933

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3	2.0				5.6							
4	3.8											
5												
6												
7	0.2											
8	1.3											
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22								8.9				
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	7.3	0	0	0	5.6	0	0	8.9	0	0	0	0
Annual total	21.8											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1934

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4					2.3							
5												
6												
7												
8												
9												
10												
11							0.8	1.0				
12												
13												
14												
15												
16												
17												
18												
19												
20												
21											39.1	
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0	0	0	2.3	0	0.8	1.0	0	0	39.1	0
Annual total	43.2											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1934

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4					2.3							
5												
6												
7												
8												
9												
10												
11							0.8	1.0				
12												
13												
14												
15												
16												
17												
18												
19												
20												
21											39.1	
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0	0	0	2.3	0	0.8	1.0	0	0	39.1	0
Annual total	43.2											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1936

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5												
6												
7												
8												
9												
10	0.2											
11								1.5				
12												
13												
14												
15												
16		4.3										
17		7.4										2.0
18		20.3										0.2
19												
20		24.6										
21												
22												
23		0.2	0.5									
24		0.2										
25												
26												
27												
28												
29												
30		-										
31		-		-		-			-		-	
Totals	0.2	57.0	0.5	0	0	0	0	1.5	0	0	0	2.2
Annual total	61.4											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1937

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2			5.8	9.4								
3								4.3				
4				2.0								
5												
6												
7												
8												
9												
10		0.8										
11		0.8									9.4	
12					3.3							
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26			0.5									
27	7.1		1.0									
28												
29		-	0.8									
30		-										
31		-		-		-			-		-	
Totals	7.1	1.6	8.1	11.4	3.3	0	0	4.3	0	0	9.4	0
Annual total	45.2											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1938

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5								0.5				
6												
7												
8												
9												
10					1.3							
11												
12												
13								0.8				
14							3.8					
15												
16												
17												
18												
19								9.1				
20			1.3									
21								0.5				
22							10.2					
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0	1.3	0	1.3	0	14.0	10.9	0	0	0	0
Annual total	27.5											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1939

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5												
6												
7												
8			2.3									
9				4.3								
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-	0.8									
31		-	2.0	-		-			-		-	
Totals	0	0	5.1	4.3	0	0	0	0	0	0	0	0
Annual total	9.4											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1940

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3			3.1									
4			30.5									
5			15.0									
6												
7			2.8									
8			6.4									
9												
10												
11												
12												
13												
14												
15			1.8									
16												
17					10.2							
18												
19												
20												
21												
22		5.6										
23												
24												
25												
26												
27												
28												
29		25.2	0.5									
30		-	1.0									
31		-		-		-			-		-	
Totals	0	30.8	61.1	0	10.2	0	0	0	0	0	0	0
Annual total	102.1											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1942

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1			1.5									
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17				1.8								
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0	1.5	1.8	0	0	0	0	0	0	0	0
Annual total	3.3											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1943

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3					65.1							
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21										5.6		
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0	0	0	65.1	0	0	0	0	5.6	0	0
Annual total	70.7											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1944

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5												
6												
7												
8												
9			2.2									
10												
11												
12			0.5									
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0	2.7	0	0	0	0	-	0	0	0	0
Annual total	2.7											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1945

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2			2.7									
3												
4						21.9		1.0				
5								0.9				
6												
7												
8		0.7			6.6							
9					1.1							
10								0.4				
11												
12												
13												
14												
15				1.6								
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0.7	2.7	1.6	7.7	21.9	0	2.3	0	0	0	0
Annual total	36.9											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1946

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3								1.9				
4												
5												
6												
7												
8												
9												
10												
11												
12												
13				13.0								
14				7.0	1.5							
15					1.8							
16												
17												
18												
19												
20												
21												
22												
23	1.1											
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	1.1	0	0	20.0	3.3	0	0	1.9	0	0	0	0
Annual total	26.3											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1948

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5												
6												
7										3.8		
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26				60.5								
27												
28												
29												
30		-										
31		-		-		-			-		-	
Totals	0	0	0	60.5	0	0	0	0	0	3.8	0	0
Annual total	64.3											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1947

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5					0.6							
6												
7												
8												
9												
10												
11												
12												
13												
14												
15								1.1				
16												
17												
18												
19			0.3									
20												
21												
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0	0.3	0	0.6	0	0	1.1	0	0	0	0
Annual total	2.0											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1949

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1								4.7				
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12									18.6			
13												
14												
15												32.0
16												29.7
17												6.2
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31		-		-		-			-		-	
Totals	0	0	0	0	0	0	0	4.7	18.6	0	0	67.9
Annual total	91.2											

DAILY RAINFALL (mm)

STATION : BERBERA Year : 1950

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1									6.8			
2								16.0				
3												
4												
5									2.4			
6												
7									5.5			
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18	16.0											
19												
20												
21												
22												
23												
24												
25												
26												
27	0.5											
28	45.0											
29		-										
30	3.9	-										
31		-		-		-			-		-	
Totals	65.4	0	0	0	0	0	0	16.0	14.7	0	0	0
Annual total	96.1											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1944

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					2.0			5.5	0.7			
2					0.5			24.0				
3					0.9							
4												
5							0.2	12.3	0.3			
6					1.4						6.8	
7						3.4			5.6			
8							3.2	0.7	5.6			
9			1.1		29.7				1.0			
10			11.1					3.1				
11												
12												
13								5.2				
14												
15						11.1	4.8	1.3	12.9			
16							15.4		0.1			0.3
17					7.4	2.3						
18								8.6				
19					2.2		0.7	4.9				
20						0.4		4.9				
21						10.5	0.1	2.0				
22								6.4				
23					1.6	1.8						
24						6.8		0.7				
25									0.4			
26									7.9			
27												
28						36.0						
29				3.9	14.0							
30		-					16.3					
31		-		-		-			-		-	
Totals	0	0	12.2	3.9	59.7	72.3	40.7	79.6	34.5	0	6.8	0.3
Annual total	310.0											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1944

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					2.0			5.5	0.7			
2					0.5			24.0				
3					0.9							
4												
5							0.2	12.3	0.3			
6					1.4						6.8	
7						3.4			5.6			
8							3.2	0.7	5.6			
9			1.1		29.7				1.0			
10			11.1					3.1				
11												
12												
13								5.2				
14												
15						11.1	4.8	1.3	12.9			
16							15.4		0.1			0.3
17					7.4	2.3						
18								8.6				
19					2.2		0.7	4.9				
20						0.4		4.9				
21						10.5	0.1	2.0				
22								6.4				
23					1.6	1.8						
24						6.8		0.7				
25									0.4			
26									7.9			
27												
28						36.0						
29				3.9	14.0							
30		-					16.3					
31		-		-		-			-		-	
Totals	0	0	12.2	3.9	59.7	72.3	40.7	79.6	34.5	0	6.8	0.3
Annual total	310.0											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1946

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1								4.6				
2								5.5	3.0			
3											4.5	
4				6.4								
5					0.8			3.5	1.0			
6							4.0		2.2			
7					8.6		20.2					
8							3.5	1.1				
9												
10								0.9				
11				1.0		2.4			7.5			
12				4.7						11.7		
13									0.2	18.6		
14				6.8					2.9	11.7		
15				33.4						0.3		
16				1.0	4.7				0.2			
17				2.4		11.6	0.8			3.1		
18							4.1					
19				1.4					3.0			
20						5.6				1.0		
21						21.0			0.1			
22					18.4			1.3				
23						12.3		1.8				
24	0.7							7.0				
25								19.8	0.6			
26						26.2		6.1				
27					7.6	0.2		0.9				
28				32.3			1.8	16.0	0.5			
29		-		35.8				0.8				
30		-		3.3		0.2						
31		-		-		-	5.7	9.1	-		-	
Totals	0.7	0	0	128.5	30.1	79.8	43.1	76.4	21.2	46.4	4.5	0
Annual total	432.7											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1947

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						1.3			10.0			
2					0.5	1.4			1.0			
3												
4							2.5		3.0			
5					7.9			30.5				
6								1.0				
7				24.6		2.2						
8				51.5								
9				1.6		13.8	4.0	7.2	1.0			
10				1.0		5.0		2.0				
11						4.0		6.9	1.5			
12				0.1			1.0					
13				16.1		3.0			37.5			
14				0.6		5.5	4.4					
15			3.0									
16			11.4			1.8			45.2			
17								6.4				
18					1.3			1.9	0.5			
19								3.4				
20			18.0									
21						3.5						
22			56.9			14.7						
23			1.8			3.0						
24												
25								0.9				
26							19.0					
27								51.0				
28						5.0	26.0	4.0				
29		-					1.0					
30		-			4.9		1.6					
31		-		-		-			-		-	
Totals	0	0	91.1	95.5	14.7	64.3	59.5	116.6	99.7	0	0	0
Annual total	541.4											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1948

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						23.5	1.2		0.7		3.8	
2						2.5						
3					1.0	3.3			18.0	4.2		
4					3.5					4.0		
5									10.3			
6						0.6			0.5	7.3		
7				1.6					3.2	17.0		
8									0.2	7.6		
9						21.8				5.7		
10						4.1	0.1					
11			10.3				3.5		14.8			
12								0.3	16.4			
13						4.4						
14												
15							3.8		7.6			
16								5.4	2.7			
17					6.3			4.6				
18									2.5			
19				0.7	9.3	1.7		1.2	4.0			
20		2.2			6.0				1.3	0.2		
21				47.2	2.7		0.3			7.6		
22				15.1	1.5		8.8	6.8				
23				1.1			5.1	7.9				
24				24.8					1.0			
25						0.6		1.0				
26						0.3			1.3			
27					1.0							
28					1.6		0.2	3.3				
29					0.3							
30		-										
31		-		-	0.1	-			-	11.5	-	
Totals	0	2.2	10.3	90.5	33.3	62.8	23.0	30.5	84.5	65.1	3.8	0
Annual total	406.0											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1949

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					0.6	6.1						
2									0.6	0.1		
3					13.8				0.1	1.1		
4					18.0			6.5	3.5			
5	0.5				6.8	2.7	0.1	1.5	0.6	0.1		
6					0.8				6.2	0.5		
7						9.6		2.4				
8	0.7				19.6	1.1		8.8	2.4			
9							0.3					
10		0.1				3.3			0.4			
11								2.4		2.0		
12						1.5		7.0	2.1			
13					0.1			0.6				
14					8.4	1.1						
15						8.0	5.7		0.2			8.5
16					0.5		0.5					1.9
17					1.1		0.5					1.2
18		0.1										
19		0.6				0.1		0.9				
20		0.3					0.1	7.7				
21						0.1	0.1					
22												
23						4.1		3.9				
24						1.3		36.9	2.0			
25									1.8		0.4	
26									0.4			
27							0.2				2.5	
28								17.8			5.1	
29		-					2.4					
30		-		0.1			1.3					
31		-		-	13.5	-		1.2	-		-	
Totals	1.2	1.1	0	0.1	83.2	39.0	11.2	97.9	20.3	3.8	8.0	11.6
Annual total	277.4											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1950

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1								2.5	7.9			
2					4.1				8.0			
3				1.1		6.1						
4							2.1					
5							8.8		1.9			
6						1.5						
7									5.3			
8					0.1			11.0	0.8			
9					41.0	5.0	2.4	19.3	48.1			
10						6.3	2.0		1.2			
11						9.0		4.8	0.6			
12									0.5			
13									33.3			
14							3.3		2.1			
15							3.3	19.4	1.7			
16									0.6			
17							7.3	27.9				
18								4.4				
19									19.2			
20									3.7			
21									0.6			
22					2.6			0.5				
23												
24						10.5						
25												
26						9.8		0.5				
27					6.4							
28						13.0						
29		-				1.0						
30		-						6.6				
31		-		-	0.7	-		1.5	-		-	
Totals	0	0	0	1.1	54.9	62.7	29.2	98.4	135.5	0	0	0
Annual total	381.8											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1951

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						25.0			1.1			
2				3.2					1.8			
3				13.0	4.0							
4				0.9	3.3					1.6		
5					15.5	35.5			3.5			
6						13.3				2.0		
7										9.8		
8					17.7	33.3						
9												
10					14.3			3.7				
11					17.9							
12					9.8							
13								6.5		8.8		
14					2.1							
15					1.9		1.2		2.7			
16						38.6						
17						20.2	21.3		5.6			
18			18.4			0.5	6.9				-	
19			69.9		10.9							
20			25.3		13.8	0.9	0.4	3.6	1.5			
21			11.2						11.5			
22			1.8				1.1	0.6				
23			10.2		2.4							
24			0.2		7.0		5.5					
25				2.3		17.3						
26				1.9		4.6						
27			3.3									
28			20.1	13.7			0.7					
29		-	1.6	1.4						21.9		
30		-	24.8	1.0								
31		-		-		-			-		-	
Totals	0	0	187.0	37.4	120.6	189.2	37.1	14.4	27.6	44.1	0	0
Annual total	657.4											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1952

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1										5.2		
2									5.5			
3					3.1				8.2			
4				19.0	0.5	1.6		17.9				
5				13.5			0.5					
6							1.0					
7							0.5		1.6			
8							0.7					
9												
10						1.0			0.6			
11						2.5						
12												
13				0.1								
14				12.0								
15						2.1						
16												
17						4.0						
18						11.0						
19												
20												
21												
22												
23							4.5					
24				37.9		1.5		4.9				
25				0.3			0.3	25.7				
26				7.8								
27				12.0		4.1	0.7	2.5	0.5			
28								5.7				
29						4.3		4.1	0.6			
30		-		2.9				11.5				
31		-		-		-	3.1		-		-	
Totals	0	0	0	105.5	3.6	32.1	11.3	84.2	17.0	5.2	0	0
Annual total	258.9											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1953

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					1.9	1.8		26.5		2.1		
2								10.2		4.0		
3							2.5		3.2	18.4		
4							2.2	1.2		9.2		
5						20.0						
6						1.5						
7						3.0		4.8	1.6			
8							9.3		0.3			
9									3.5			
10									0.9			
11						6.0		13.3	5.1			
12							5.8	17.0	5.1			
13												
14												
15												
16									14.3			
17				1.4	4.6				13.0			
18					12.1			1.2	6.7			
19				27.8			9.4	1.5	1.3			
20				0.2			7.5	9.7				
21				2.1				15.1				
22				3.7				0.3				3.7
23						14.5						
24									0.2			0.3
25					1.1				1.5			
26												
27						3.2	5.0					
28				7.0	4.0		1.0					
29		-			25.2	0.4		4.8				
30		-					2.1	12.3				
31		-		-	2.1	-	6.2		-		-	
Totals	0	0	0	42.2	51.0	50.4	51.0	127.9	56.7	33.7	0	4.0
Annual total	416.9											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1954

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1								7.5	2.2			
2				30.3				0.2				
3					7.8	17.0						
4				22.0	9.2	3.3			14.5	14.5		
5				10.0		8.5			5.0	2.2		
6				0.5	31.6		1.4		3.6			
7									0.6			
8								11.3	0.1			
9					12.0			6.7				
10									0.6			
11												
12						1.4			1.9			
13						2.1			7.0			
14									7.0			
15												
16						9.2	4.6		0.2			
17							0.3					
18						5.7				5.2		
19								11.6		5.3		
20								1.5	0.9			
21									2.8			
22				2.0			8.1		4.5			
23									2.0			
24							3.0	0.5	0.6			
25												
26						17.8						
27			3.7			11.1		24.0				
28			1.3			0.2						
29		-	1.2			0.3			1.2			
30		-	2.0			4.8		2.0			0.3	
31		-		-		-		6.2	-		-	1.4
Totals	0	0	8.2	64.8	60.6	76.0	17.4	71.0	54.5	27.2	0.3	1.4
Annual total	381.4											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1955

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1									6.4			
2									4.2			
3					0.4				5.6			
4					29.4			0.2				
5								6.6				
6										2.6		
7					13.9							
8					2.2					1.6		
9						0.4		1.3	2.8	0.2		
10						5.4						
11									9.3			
12								29.1	3.8			
13				2.3				2.2				
14	4.0								1.6			
15					0.4		0.5					
16							5.6		3.2			
17					0.3	8.3			7.4			
18												
19												
20						2.3		4.3				
21						1.2						
22							1.3					
23								6.8				
24				36.2			19.5	5.4				
25				0.5			11.6					
26				3.4					3.7			
27				0.5			0.6		2.8			
28				12.7								
29		-						10.8				
30		-										
31		-		-		-			-		-	
Totals	4.0	0	0	55.6	46.6	17.6	39.1	66.7	50.8	4.4	0	0
Annual total	284.8											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1956

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						0.4				1.7		
2					3.0				6.4	0.2		
3					0.3					0.7		
4												
5												
6				12.1					3.0	0.3		
7				0.1		0.2		1.3				
8				1.2		0.4			13.2	3.2		
9							1.4			6.1		
10							4.0				7.5	
11					2.0		0.5		3.8			
12				1.5			2.1	1.0	3.5	0.3		
13				9.8		1.0		1.6				
14				3.2			0.1					
15							43.1					
16				1.0					0.2			
17				31.5		0.4				42.0	1.0	
18				2.1				1.1		1.0		
19								5.0				
20				0.8					3.6	1.7		
21				3.0								
22				9.3		2.0	8.5	8.0				
23				7.9								
24				30.5	9.5		0.3	9.6	2.5			
25						4.4						
26				2.6		2.0		1.9	9.6			
27				1.6		15.5		1.0				
28					0.6	0.2					5.0	
29					5.9	4.6		1.6	2.6			
30		-						25.0	13.0			
31		-	16.5	-	0.2	-			-		-	
Totals	0	0	16.5	118.2	21.5	31.1	60.0	67.1	61.4	57.2	13.5	0
Annual total	446.5											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1957

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1			1.0		5.0		12.1					
2					25.2	0.5		7.6				
3							2.2				68.5	
4							7.1					
5						21.4			7.1			
6										0.4		
7							2.8		13.5			
8			1.4									
9			1.2									
10												
11												
12				17.3				25.6		3.3		
13								0.5				
14						9.7	0.4	8.5				
15				8.7								
16				8.5								
17				2.2				3.6		0.3		
18					3.6	2.8				0.2		
19					0.2	2.0						
20						1.0						
21				53.3		14.0		1.5			3.2	
22						5.2		11.2				
23								3.7				
24												
25								5.2				
26		1.7							0.4			
27		26.1		5.3								
28		1.2		23.6	28.3							
29			46.3					6.6				
30				2.1								
31			5.5					2.8				
Totals	0	29.0	55.4	153.2	78.3	57.6	24.6	76.8	21.0	4.2	71.7	0
Annual total	571.8											

DAILY RAINFALL (mm)

STATION : HARGEYSA

Year : 1958

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						5.8						
2												
3									9.5			
4						5.6			14.0			
5						4.0						
6						4.0						
7	0.8	1.0						12.3				
8												
9	24.5	1.9				4.0	5.5	52.6	15.8	8.0		
10	0.3						4.7					
11				1.3					35.2			
12				6.7	1.8				1.5			
13		0.1				3.8			0.4			
14			2.8					6.2	3.1			
15									13.5			
16				1.0			4.6	3.0				
17					1.1			8.8				
18												
19							13.1					
20						1.0	16.5	40.7				
21												
22	0.5			6.0				3.4				
23					0.6		2.0	1.7				
24												
25					3.0							
26												
27							3.3		3.9			
28					0.3				0.4			
29		-										
30		-				2.0						
31		-		-	6.2	-			-		-	
Totals	26.1	3.0	2.8	15.0	13.0	30.2	49.7	125.3	97.3	8.0	0	0
Annual total	370.4											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1959

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						8.5	38.0					
2						19.2	1.8		2.5	6.5		
3										3.3		
4												
5												
6						13.7		26.3				
7												
8									16.0			
9									18.4			
10					4.2				6.0			
11					7.9							
12					0.8				37.0			
13						13.3	1.2	7.0	1.8			
14							5.1		7.0			
15					8.1					5.8		
16						3.1		12.3	14.4			
17									0.5			
18									4.0			
19						0.4	0.3		0.2			
20												
21							4.0					
22	2.4											
23				3.2						1.1		
24	1.4			21.1				0.3				
25				3.1				9.9		0.7		
26				0.9	1.0	3.1						
27						1.1		3.1				
28								12.1	8.3			
29		-		1.4								
30		-		4.8	17.7	0.4						
31		-		-		-			-		-	
Totals	3.8	0	0	35.0	39.7	62.8	50.4	71.0	116.1	17.4	0	0
Annual total	396.2											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1960

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12			34.6									
13			1.5	4.0								
14			21.9	1.1								
15												
16			24.0	3.0								
17			5.9									
18			11.0									
19			15.0									
20			51.6									
21			31.0									
22												
23												
24												
25												
26			15.8									
27			4.0									
28												
29			3.5									
30			9.0									
31												
Totals	0	0	229.7	8.1	225.4	10.9	15.0	55.0	63.9	7.0	0	8.0
Annual total	623.0											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1963

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2					5.2							
3												
4								3.6				
5				6.6		3.0	9.7				14.3	
6				2.0							1.0	
7												
8					7.0							
9					3.0							
10												
11				3.4	42.0			28.0				
12				6.0		5.8	6.7	3.0				
13						8.8						
14				100.0	8.0			2.0				
15				18.3		20.0						
16				8.0				8.5				
17				36.2								
18				9.4		1.0			6.3			
19									4.7			
20									17.0			
21								3.6	3.7			
22						9.6						
23												
24						1.0			16.0			
25								2.3	3.6			
26								4.3				
27							3.1			6.7		
28				39.8				3.6				
29				15.0			6.7					
30								4.7				
31					6.8				-		-	
Totals	0	0	0	244.7	72.0	49.2	26.2	63.6	51.3	6.7	15.3	0
Annual total	529.0											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1964

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1				15.0								
2				50.2								
3				22.2			15.2	10.5		7.5		
4				0.4	3.0	6.5		3.4				
5									23.5			
6							17.2					
7					4.7		6.1					
8									10.0			
9						2.9			1.1			
10					13.7	6.6						
11									10.5			
12						0.6			4.7			
13							1.0		10.0			
14								7.7	1.7			
15								9.8				
16									5.4			
17												
18												
19						9.4						
20				35.0		5.8						
21												
22												
23						12.5	7.2					
24												
25						3.0						
26												
27					11.0			4.5				
28									1.5			
29					4.3		8.0					
30												
31					1.0							
Totals	0	0	0	122.8	37.7	47.3	54.7	35.9	68.4	7.5	0	0
Annual total	374.3											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1965

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1									0.6	19.0		
2									12.3			
3									7.0			
4												
5									6.8			
6												
7												
8												
9												
10				0.6								
11												
12									1.9			
13												
14							1.9					
15												
16							1.5					
17				27.0		2.3	2.4					
18								5.0				
19												
20												
21						8.4						
22												
23				25.0	2.5							
24												
25												
26							19.0		6.0			
27												
28												
29					1.0							
30												
31					6.0							
Totals	0	0	0	52.6	9.5	10.7	24.8	5.0	34.6	19.0	0	0
Annual total	156.3											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1966

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1				19.5		2.2						
2						1.0						
3												
4								8.5	1.3			
5								29.6				
6					2.0							
7												
8												
9								5.0	1.5	1.4		
10							3.6					
11					25.2			3.7	1.5			
12				12.0				1.5	1.3	0.7		
13									0.8			
14									1.3			
15									4.0	20.6		
16						8.0			4.6	8.5		
17										19.9		
18				3.2				3.4				
19				2.8	0.1				4.2			
20					1.0			4.2				
21								2.1				
22				5.0				3.7				
23					0.4							
24								3.9				
25								28.2				
26								9.6				
27								14.5				
28					0.7		1.9					
29										4.8		
30						1.6						
31								23.6				
Totals	0	0	0	42.5	29.4	12.8	5.5	141.5	20.5	55.9	0	0
Annual Total	308.1											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1967

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						2.0			36.2	1.0		
2				1.5		2.0		1.5	0.5			
3				0.6	31.0				14.6			
4								3.1	1.0	1.7		
5										15.0		
6								2.0	0.2	4.3		
7						10.3	6.1	14.0		4.8		
8												
9					1.2		2.5					
10								3.5	0.5			
11							3.3		0.5			
12							9.7					
13							8.5				13.7	
14					6.4		0.7		27.0			
15					0.6			6.6		0.2		
16				0.5						1.3		
17						9.7			4.3			
18				44.4				3.4	3.4			
19									1.3		18.9	
20					10.0		12.0	19.0			27.0	
21								0.4	2.9		27.0	
22									2.4			
23				3.2								
24								13.4				
25					30.6			12.6				
26												
27								0.5			1.0	
28					0.8			6.7	0.6			
29			43.8	0.4	3.9							
30								0.5				
31			4.2		14.8		1.3					
Totals	0	0	48.0	78.8	99.3	24.0	44.1	87.2	95.4	28.3	87.6	0
Annual total	592.7											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1968

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						37.3						
2						0.4		3.3				
3				14.0		2.5						
4		1.0				3.0		1.5				
5						1.9	8.0					
6								8.0				
7									2.2			
8									32.7			
9					7.0				3.3			
10									0.5			
11									1.8			
12				2.5	2.1							
13				4.2								
14					2.0			2.4	1.3			
15				39.0	0.5						1.4	
16				2.2				1.0			2.5	
17					23.0							
18									2.5			
19						12.0		3.0				
20					0.7	0.1	19.0				0.4	
21								3.0				
22												
23								3.0				
24		31.5		15.0								
25		21.0		1.6		2.8	3.0	3.5			3.4	3.9
26		6.4			7.0	2.0						
27		32.5										
28		29.0		25.2			0.5					
29		1.2							17.0			
30				1.4					10.0			
31					28.9		0.7	5.5				
Totals	0	122.6	0	105.1	71.2	62.0	31.2	34.2	71.3	0	7.7	3.9
Annual total	509.2											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1969

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2					5.0							
3												
4					2.9		2.0		4.0	0.5		
5				2.0								
6								3.0		2.4		
7												
8								4.0	3.8			
9												
10				1.5	2.9			3.0				
11								0.5	10.0			
12					2.9							
13							5.0					
14												
15									11.2			
16		26.0								0.5		
17		6.0										
18												
19											4.2	
20								7.7			38.4	
21												
22		8.0	4.0									
23		12.2	20.0			0.4	20.1	8.0				
24		10.0						14.0				
25			16.2			2.3	7.0		0.2			
26					17.0		37.0					
27							5.0					
28								5.0	0.1			
29				13.0				4.0				
30							3.0					
31					10.5							
Totals	0	62.2	40.2	16.5	41.2	2.7	79.1	49.2	29.3	3.4	42.6	0
Annual total	366.4											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1970

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1	7.2		22.2									
2			8.0									
3			2.6	2.0		0.5		10.0				
4												
5					4.5							
6								6.4				
7												
8							12.8		4.8			
9				4.7								
10				5.8			12.0	16.0		5.5		
11												
12							12.0		16.5			
13								1.0	1.0			
14							13.0		2.5			
15			20.0				12.2					
16				6.0								
17							5.0			1.0		
18								1.5		2.9		
19								13.5	7.5			
20								0.8	1.7			
21							5.0	9.0	5.0			
22												
23					0.1			0.5				
24												
25												
26									2.0			
27				10.0			3.0					
28		7.0										
29					7.6		12.0					
30				3.0		0.5						
31									-			
Totals	7.2	7.0	52.8	35.5	12.2	1.0	87.0	58.7	41.0	9.4	0	0
Annual total	311.8											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1971

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1									2.5			
2				14.0								
3				14.1	21.0				3.3	2.3		
4					15.0					0.5		
5							12.7					
6				3.0	1.5	3.6			24.4			
7					22.9							
8				2.5								
9												
10				1.3								
11												
12				25.4								
13											6.4	
14						2.7					5.0	
15					1.3	34.0		2.5				
16						1.3		10.0				
17						1.5		34.2				
18					25.4							
19						4.3						
20						2.5						
21					6.0							
22							3.0					
23						21.1						
24					3.0		5.6	9.0				
25					1.3							
26			12.7				3.8					
27							10.0	1.3				
28												
29								5.1				
30			3.8									
31							2.5		-			
Totals	0	0	16.5	60.3	97.4	81.0	37.6	62.1	30.2	2.8	11.4	0
Annual total	399.3											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1972

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1							4.6					
2							10.2		12.5			
3							27.9			9.9		
4									5.1			
5								3.5	3.0	2.0		
6				19.0								
7												
8									12.7			
9							2.5					
10												
11									32.5			
12												
13												
14						26.0						
15							9.0	13.0				
16												
17				16.5					10.2			
18							10.0		7.6			
19				11.4								
20				1.0								
21				2.0								
22					5.1			8.0				
23						2.5		3.0				
24				10.9			2.0					
25				7.8		2.5						
26												
27				17.8								
28										2.0		
29							9.7	11.0		4.0		
30				2.5								
31							2.5		-			
Totals	0	0	0	88.9	5.1	31.0	78.4	38.5	83.6	17.9	0	0
Annual total	343.4											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1973

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1									6.4			
2									32.0			
3						3.8		11.4				
4						2.5		3.3				
5								1.3	7.6			
6												
7												
8												
9							1.3					
10										1.5		
11					4.8							
12												
13				19.1								
14				7.6	9.0							
15												
16												
17					2.7		3.0		1.6			
18							21.6					
19								12.0				
20					17.8							
21									2.5			
22					5.0							
23					0.2							
24				5.3								1.3
25												6.3
26								3.0				
27												
28												
29								2.0	5.1			
30												
31						7.0		14.0				
Totals	0	0	0	32.0	39.5	13.3	25.9	47.0	55.2	1.5	0	7.6
Annual total	222.0											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1974

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1								11.4	30.5			
2							16.1					
3								17.8				
4								9.0				
5							6.0					
6							3.8		29.5			
7						1.5						
8				1.3								
9												
10							6.0		2.3			
11					7.6							
12							3.8		2.5			
13							9.0					
14												
15												
16							3.6					
17												
18									1.7			
19												
20			21.7					10.2	5.0			
21			40.6									
22							12.7					
23					2.5		16.8					
24												
25								3.0				
26			38.0		20.3	5.0						
27			2.0		2.0							
28												
29					10.1	12.7		11.0				
30						1.0						
31					7.1							
Totals	0	0	102.3	1.3	49.7	20.2	77.8	62.4	71.5	0		0
Annual total	385.2											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1975

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2				46.7								
3												
4												
5						12.7			3.0			
6						2.5			13.0			
7												
8					20.6		12.5		3.0			
9						7.9						
10						1.3			7.6			
11				60.0					6.8			
12				18.0			10.2		14.0			
13				5.1	6.4							
14				3.6								
15							9.0	6.0				
16									10.2			
17					3.0				13.0			
18						17.8						
19						2.5		7.6	10.4			
20								6.0				
21								3.0				
22					4.0				3.0			
23												
24				33.0								
25						2.5		6.0				
26												
27									4.0			
28												
29												
30					7.6							
31								35.6				
Totals	0	0	0	166.4	41.6	47.2	31.7	64.2	98.0	0	0	0
Annual total	449.1											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1976

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					11.0				5.8			
2					43.0				57.4		1.0	
3					5.0				5.0	3.0	2.0	
4					2.5			1.0	8.9			
5					67.3			1.5				
6				44.0	10.5					10.0		
7				0.5	17.0		27.9		9.0			
8				35.0	5.1		5.1					
9				5.8	6.8							
10				6.0		42.5	25.4					
11						11.6			33.0			
12							2.5			43.2		
13					15.0			1.0	2.5	3.0		
14					1.3			0.8	21.6			
15									7.6			
16					4.0	0.5						
17									3.0			
18												
19						6.3		15.0				
20				3.0					0.8			
21				18.0			10.0	1.5				
22				2.0		3.3						
23					2.0							
24						2.6						
25			2.0		5.0	3.0			20.6			
26												
27												
28						7.6	3.3					
29					3.3							
30								3.8				
31					0.6		2.0	13.7				
Totals	0	0	2.0	114.3	199.4	77.4	76.2	38.3	175.2	59.2	3.0	0
Annual total	745.0											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1976

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					11.0				5.8			
2					43.0				57.4		1.0	
3					5.0				5.0	3.0	2.0	
4					2.5			1.0	8.9			
5					67.3			1.5				
6				44.0	10.5					10.0		
7				0.5	17.0		27.9		9.0			
8				35.0	5.1		5.1					
9				5.8	6.8							
10				6.0		42.5	25.4					
11						11.6			33.0			
12							2.5			43.2		
13					15.0			1.0	2.5	3.0		
14					1.3			0.8	21.6			
15									7.6			
16					4.0	0.5						
17									3.0			
18												
19						6.3		15.0				
20				3.0					0.8			
21				18.0			10.0	1.5				
22				2.0		3.3						
23					2.0							
24						2.6						
25			2.0		5.0	3.0			20.6			
26												
27												
28						7.6	3.3					
29					3.3							
30								3.8				
31					0.6		2.0	13.7				
Totals	0	0	2.0	114.3	199.4	77.4	76.2	38.3	175.2	59.2	3.0	0
Annual total	745.0											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1978

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1			1.0		20.0				8.0			
2					16.0							
3					8.0					13.0		
4												
5								9.0	1.0			
6								8.9		2.0	10.0	
7										1.0		
8												
9								19.0	6.0	3.0		
10					5.0	0.5			13.0			
11												
12					3.2		1.6					
13					2.0							
14		9.0							5.0	24.4		
15		57.0					2.0		3.0	5.0		
16					7.0					3.2		
17					2.0			13.5				
18				9.0				25.0	3.0			
19				25.0				5.0				
20					6.0			6.0				
21					3.5			11.0				
22												
23							1.0	8.0	10.0	2.0		
24								3.0	4.0			
25		2.0							9.0			
26		29.5					3.0	10.0				
27		3.0					1.5					
28							9.0	9.0				
29							8.0	4.0				
30								2.0				
31					1.0		1.5	2.0				
Totals	0	100.5	1.0	34.0	73.7	0.5	27.6	135.4	62.0	53.6	10.0	.0
Annual total	498.3											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1973

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2						5.0						
3												
4						8.6						
5						1.0	5.0					
6				6.0								
7					1.0	34.0						
8					1.5		9.5		9.9			
9					0.2	2.0	4.0					
10						22.0	3.0		1.2			
11						12.0			13.0			
12								3.0	6.0			
13	1.5											
14	15.0					1.0						
15	10.0				0.6					25.0		
16								10.0		12.0		
17			15.0							8.0		
18			9.0									
19										49.2		
20					2.0					9.0		
21					1.0					3.0		
22					38.0		4.0					
23					4.0	32.0						
24				3.0	1.0			2.0				
25								3.0				
26												
27												
28				6.0					1.0			
29			35.0									
30			1.0									
31												
Totals	26.5	0	60.0	9.6	49.3	117.6	25.5	18.0	31.1	106.2	0	0
Annual total	443.8											

DAILY RAINFALL (mm)

STATION : HARGEYSA Year : 1980

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					35.0	1.0			6.0			
2					4.0	1.0						
3												
4										0.7		
5										0.6		
6												
7				1.0		12.0						
8				5.0								
9							1.0		2.0			
10						1.0		1.0	1.0			
11					2.0							
12									7.0			
13							1.0					
14												
15												
16												
17							8.0					
18							4.0					
19												
20												
21								1.0		23.0		
22												
23												
24												
25									42.0		1.8	
26									2.0			
27							9.0		9.0			
28								2.0				
29								1.0				
30				7.0			0.3					
31												
Totals	0	0	0	13.0	41.0	16.0	23.3	5.0	69.0	24.3	1.8	0
Annual total	193.4											

DAILY RAINFALL (mm)

STATION : GEBILEY Year : 1957

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2							4.3					
3							11.4		11.9			
4				7.5								
5							6.9					
6									0.8			
7									2.5			
8			2.3			7.1	33.0					
9						3.6						
10						6.9						
11				4.1								
12				1.0								
13								24.4				
14								1.8		2.8		
15				4.1								
16				40.6				11.4				
17								1.5		32.3		
18							4.8					
19						3.0						
20												
21				33.3								
22												
23							34.3					
24												
25							3.8					
26		19.3					12.2					
27							4.1					
28		9.7		9.9			4.6					
29			13.7	1.0								
30			8.1	23.1								
31												
Totals	0	29.0	24.1	124.5		20.6	119.4	39.1	15.2	35.1	0	
Annual total	407.0											

DAILY RAINFALL (mm)

STATION : GEBILEY Year : 1958

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						10.7						
2									5.3			
3									13.7			
4						3.6		9.9	7.4			
5												
6				13.2		2.3						
7	7.6							7.6	3.0			
8												
9		3.5						9.7				
10				5.6			7.1					
11		5.1		17.8			0.5	6.9				
12									1.5			
13			4.3	18.8		2.0						
14						2.5		5.3	6.4			
15							23.9					
16						3.6	4.6	22.6	13.0			
17												
18												
19							4.1					
20				3.6								
21												
22							32.8					
23								4.6				
24							6.1					
25												
26						5.8	2.5					
27						1.3						
28								13.2				
29					7.6			2.8				
30								25.4				
31						2.8						
Totals	7.6	8.6	4.3	57.0	7.6	34.6	81.6	108.0	50.3		0	0
Annual total	359.6											

DAILY RAINFALL (mm)

STATION : GEBILEY Year : 1959

Mois	J	F	M	A	M	J	J	A	S	O	N	D
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												
Totals	2.5	0	0	1.0	46.7	19.6	119.1					
Annual total												

DAILY RAINFALL (mm)

STATION : GEBILEY Year : 1965

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2								4.6				
3									12.2			
4										10.2		
5								2.5				
6												
7								5.1				
8											19.0	
9												
10								3.8				
11								2.5				
12								20.3				
13												
14												
15												
16												
17								35.6				
18								7.1				
19												
20								6.4				
21												
22												
23												
24									2.3			
25												
26												
27												
28												
29									2.5			
30								2.8				
31												
Totals								90.7	17.0	10.2	19.0	
Annual total												

DAILY RAINFALL (mm)

STATION : GEBILEY Year : 1967

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1				13.0	32.5							
2					7.1							
3				3.0	4.1		3.8					
4					1.0	9.9						
5												
6												
7							8.1					
8					2.0	12.7						
9					7.4							
10												
11					4.6							
12							7.1					
13							6.1					
14					3.6							
15					1.8		10.2	4.6				
16					4.8							
17												
18								12.2				
19				50.0			16.5					
20									7.9			
21							6.6					
22						10.2			6.6			
23				3.0					7.6			
24												
25								7.1				
26									9.1			
27									10.2			
28					5.8		4.6	4.1				
29			18.0						16.2			
30			20.0			0.8	4.1		4.1			
31												
Totals			38.0	69.0	74.7	33.6	57.1	28.0	62.0			
Annual total	372.4											

DAILY RAINFALL (mm)

STATION : GEBILET Year : 1969

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2			28.4					5.3				
3								5.7				
4								0.2				
5				19.1				5.5	5.6			
6								2.7	17.8			
7												
8									22.9			
9								12.0				
10				0.3					3.8			
11								2.2				
12									20.3			
13												
14									3.8			
15												
16												
17									1.3			
18												
19			8.1					14.0				
20			8.5	24.9								
21								10.0				
22				0.3				3.5				
23			8.4									
24				39.4								
25												
26												
27												
28								20.0				
29				5.6								
30												
31												
Totals			53.4	89.6	?	?	?	81.1	75.5	?	?	?
Annual total												

DAILY RAINFALL (mm)

STATION : GEHILEY Year : 1971

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1									4.1	7.6		
2				11.7				9.7				
3					25.4				12.7			
4				2.5	21.5				11.9			
5					15.2			1.3				
6				20.3					10.9			
7				34.3		11.4						
8				2.5					1.3			
9								9.9	4.3			
10							0.5		2.5			
11							20.3					
12							5.1					
13							2.3		1.3			
14					1.8		1.8	3.3	4.3		19.1	
15					2.0	6.4	6.9	6.4	25.4			
16												
17					0.8	5.1						
18						1.3						
19						0.3						
20												
21						20.3	7.1					
22						4.8	3.3					
23					1.5	2.5	5.1	1.5				
24							1.8	1.3				
25					2.5		4.1	0.5				16.5
26							1.3	5.1				
27						1.3		14.7				
28								11.4				
29												
30												
31												
Totals				71.3	70.7	53.4	59.6	65.1	78.7	9.6	19.1	16.5
Annual total	444.0.											

DAILY RAINFALL (mm)

STATION : GEHILEY Year : 1972

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1									2.5			
2									6.4			
3		11.4		1.3			3.8					
4		3.3										
5				6.4				3.8				
6							9.2					
7												
8									14.0			
9							20.3					
10		1.3		3.8					5.1			
11												
12												
13								3.8				
14						10.2		9.1				
15												
16									12.7			
17			6.9	12.7		6.4			2.5			
18					53.3		1.3					
19				2.0	5.8	3.1						
20				3.0					16.5			
21						5.1						
22				6.6								
23			2.5	10.2	6.4		1.3					
24				31.8			6.4					
25				22.4								
26			20.8	15.7		2.5						
27				25.9		1.3	7.6					
28								5.1				
29								1.3				
30												
31								1.5				
Totals		16.0	30.2	141.8	65.5	28.6	49.9	24.6	59.7			
Annual total	416.3											

DAILY RAINFALL (mm)

STATION : GEDILEY Year : 1973

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						9.2		3.8	9.1			
2								6.4	3.8			
3					15.2	12.7			9.2			
4								25.4				
5								16.5		1.3		
6									11.4			
7									11.4			
8												
9								3.8				
10							2.5	1.3				
11					24.1	3.8		2.5	12.7			
12								10.2	7.6			
13				2.5	14.0							
14					22.9		7.6					
15												
16												
17							12.7					
18								3.8				
19						2.5		3.8				
20					5.1		5.1					
21					4.1		1.5		5.1			
22								5.1	6.4			
23												
24						20.3	20.3					
25												6.9
26				3.8		7.6						
27							1.5	9.7				
28												
29				21.6								
30				3.8				6.4				
31					12.7							
Totals				31.7	98.1	56.1	51.2	98.7	76.8	1.3		6.9
Annual total	420.8											

DAILY RAINFALL (mm)

STATION : GEBILEY Year : 1974

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1							33.0	4.0	2.5			
2				13.0					6.4			
3						6.4		15.0	2.5			
4							11.4		5.1			
5												
6									2.5			
7			2.5									
8												
9					19.1	6.4			2.5			
10					6.4		11.4					
11							19.1					
12							5.1					
13					9.2	3.8			5.1			
14								4.0	2.5			
15									9.2			
16									10.2			
17						9.2						
18			2.5						2.5			
19			12.5				20.6					
20			24.1				2.5		2.5			
21			15.2				15.2		12.7			
22							10.2					
23							2.5					
24												
25												
26			33.0		10.2			23.0	11.4			
27									2.5			
28												
29					5.1	17.8	5.1					
30					3.8							
31					7.6							
Totals			39.9	13.0	61.4	43.6	136.1	46.0	80.1			
Annual total	470.0											

DAILY RAINFALL (mm)

STATION : GEBILEY Year : 1980

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					33.0							
2												
3										10.0		
4									30.0	10.0		
5									20.0			
6												
7								6.0	8.0			
8												
9									7.0			
10												
11												
12								8.0				
13												
14												
15												
16								30.0				
17												
18												
19												
20												
21										30.0		
22								40.0		20.0		
23												
24												
25												
26									30.0			
27												
28								10.0				
29												
30								40.0				
31								7.0				
Totals	0	0	0	0	33.0	?	?	174.0	95.0	70.0	0	0
Annual total	372.0											

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1967

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1				2.0			33.0	0.2	2.6	3.0		
2			0.5		9.9	6.5	7.5	1.5	1.6			
3					1.4		2.4	7.0	30.0	3.0		
4												
5					0.2				3.0	2.5		
6					0.5			8.8		4.6		
7					4.3				13.2	26.5		
8					0.1	3.1			2.0			
9												
10					0.5			19.0	0.1		6.0	
11					3.4		8.8	5.0				
12				3.0	12.0		6.0	29.5			4.5	
13				0.2	0.1		1.5		0.3		6.1	
14				0.2	1.8		7.2				0.1	
15								25.0	0.3			
16							0.2	22.0			1.6	
17									0.1		2.5	
18			1.0	5.0					0.4			
19							21.0		1.2		7.0	
20									3.9		8.5	
21				7.7		2.4						
22				3.4		2.0	18.5	21.0	9.0			
23				5.0					10.5			
24								14.9				
25			5.5				0.2	10.0				
26			1.2	5.0		0.5	12.0					
27							1.8					
28			1.5	0.2			0.5					
29			2.5						2.0	2.0		
30			1.5	1.4			6.0		15.5			
31									5.3			
Totals	0	0	13.2	33.1	34.2	14.5	126.6	186.7	80.4	39.6	36.3	0
Annual total	564.6											

DAILY RAINFALL (mm)

Year : 1968

A	M	J	J	A	S	O	N	D
		3.5	0.1	6.0				
					1.5			
	3.0							
	4.0		6.5					
1.9		7.5	0.2					
2.0			29.5	2.5	6.0			
	0.3		0.2	2.5	9.5			
	4.0			6.4	1.0			
42.0	0.2							
3.2			0.3	14.1				
18.0			1.8		1.0			
0.4					8.0			
0.5	2.0			7.5				
	12.5	2.0		4.5	3.0		5.5	
				10.7	22.0		0.5	
				7.5	3.0			
28.5				1.5	1.0			
0.5			3.0	0.5	5.0			
	2.0		4.0	4.0				
6.5		24.0		6.0				
		1.0	2.0	10.5				
					4.5			
0.1					5.0			
		3.0	7.5					
0.6		2.5	2.5					
11.3		28.5		6.2	2.0			1.0
0.5								
18.0		3.0		12.0				
			0.4		0.5			
				3.5				
	2.5			1.0				
134.0	30.5	75.0	54.4	106.9	73.0	0	6.0	1.0

584.4

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1969

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1							1.0				5.0	
2												
3								5.0				
4							5.0					
5				30.0			8.0	16.0	3.0	5.5		
6				8.0					0.4			
7						6.0	1.0					
8												
9							13.0	20.0	6.5			
10								12.5				
11				1.0				8.0				
12				15.0			7.0	13.0				
13		0.5							10.0			
14		13.0					1.5					
15		5.0					3.0		1.0			
16		2.0					0.2	9.0		2.0		
17		2.5										
18												
19				2.5								
20			1.5				9.0				12.0	
21		10.5	17.5			1.0						
22		11.0				5.0						
23		10.0	4.5			0.4	8.0					
24		16.0		8.0				11.5				
25		5.0				2.5	10.0					
26					7.0		3.0					
27					29.0							
28					7.5							
29				5.0		4.0		1.0				
30				8.0	2.0		5.0					
31								27.0				
Totals	0	77.5	23.5	77.5	45.5	18.9	74.7	123.0	20.9	7.5	17.0	
Annual total	486.0											

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1970

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1									11.0			
2								12.0				
3								3.0	1.0			
4									1.0	4.0		
5									13.0			
6								5.5				
7									4.5			
8							11.0		3.0			
9				33.5	1.0							
10				1.5					1.0			
11				4.0								
12									2.0			
13							4.5					
14							31.5					
15												
16								1.0				
17				2.5								
18							3.0					
19								21.0				
20							0.5	11.0				
21							2.0	27.0	8.0			
22							3.0	22.0				
23												
24								1.0				
25				2.5			21.0					
26							21.0					
27							7.5	18.5				
28							12.5	18.5				
29							4.0					
30												
31							7.5					
Totals	?	?	36.0	43.5	1.0	4.0	129.0	140.5	44.5	4.0	0	0
Annual total	402.5											

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1971

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					8.0			2.0				
2				4.5	1.5			2.5	2.0			
3				2.5	1.0	6.0						
4					13.4				13.0			
5						68.0		4.0				
6					2.5		2.0	26.0	0.5			
7					11.0							
8				5.0			2.0	3.0	25.0			
9				15.0								
10				28.0				1.0				
11					9.5			5.5			3.0	
12				35.0			4.0				20.0	
13							1.0		1.5		4.0	
14								6.5	36.0	2.0		
15				25.5				5.0	3.0			
16				4.5	1.0			16.0				
17						6.0						
18					19.0		24.0	1.5	1.5			
19							3.5					
20												
21						1.0						
22					5.0		1.0					
23			0.3				7.0	10.0				
24			7.0					2.0				
25			4.5		4.5	2.0	1.5	3.0				1.5
26												
27							4.0					
28							2.0	4.5				
29			8.0									
30			16.0					5.0				
31							25.0	5.5				
Totals	0	0	35.8	120.0	76.4	83.0	77.0	103.0	82.5	2.0	27.0	1.5
Annual total	608.2											

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1972

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1							2.0	4.5	29.0			
2					6.0			3.5	1.0	4.0		
3		2.5		5.0			14.0	12.0	1.0	2.0		
4		3.2										
5				31.5	1.5	5.0			1.0			
6		4.5		17.0								
7		1.0										
8		3.5				2.0			2.0			
9		1.0					1.0					
10		1.0		2.0				7.0				
11		3.5		2.0			24.0		6.5			
12				9.0			3.0	3.0	12.0			
13									3.0			
14								2.0				
15			32.0			3.0	1.0	2.0				
16			10.0	2.0				17.0	8.0	5.0		
17								1.0				
18					46.0	2.5						
19			10.0	14.0	34.0							
20					5.0							
21							1.0	27.5				
22				12.0	1.0							
23												
24			1.5	6.0								
25				8.0		2.5						
26												
27				1.0			3.0					
28										1.0		
29						2.0		4.0				
30												
31					3.5							
Totals	0	20.2	53.5	109.5	97.0	17.0	49.0	83.5	63.5	12.0	0	0
Annual total	505.2											

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1973

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1												
2					3.0			33.0	2.0			
3					13.0	6.5						
4					1.0							
5	4.0							9.0	2.5	19.0		
6							1.0					
7									1.0			
8								7.0	4.0			
9									2.0			
10								2.0	1.0			
11								12.0	2.0			
12								8.5				
13				9.5	1.0							
14				4.0			5.0					
15				21.0			3.0					
16				6.0			2.0	3.0				
17				12.0			16.0	14.0				
18							5.0		19.0			
19				3.5				4.0	1.0			
20					2.0		6.5	8.0	1.0			
21					1.0		10.0		5.5			
22					34.5		6.0		6.0			
23					4.0	1.0	1.0					
24							3.0					
25						4.0	10.0					1.0
26				27.0		18.0	1.0					
27				8.0		5.0	1.0					
28				3.0			2.0					
29				8.5								
30				1.5		1.0						
31												
Totals	4.0	0	0	104.0	59.5	35.5	72.5	100.5	47.0	19.0	0	1.0
Annual total	509.6											

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1974

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1						2		6	1			
2						3	4	5				
3								9	9.5			
4							2	23				
5									5			
6							5		10			
7					2				2			
8					3	2		5				
9					13	3						
10					6							
11					3		2		4			
12					2							
13						12		1				
14					2		4	4				
15							14	4				
16							3		20			
17						4	2	5				
18						10						
19			17				3					
20			6					4	1			
21			38				3	2	2			
22			7				21	2				
23			10			5						
24						3	1	7				
25					6	18		8				
26			17		2			1.5				
27			19							1		
28			2				5	2				
29						1	1	4				
30						4	14					
31					16							
Totals	0	0	116	0	55	67	84	92.5	53.5	1	0	0
Annual total	469.0											

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1975

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1				4				11		5		
2				12				4	56	6		
3				7					3	2		
4									2	1		
5						4.5	19					
6						5	1	3				
7							4	22	4			
8									2			
9						7.5	12		6			
10		3		2					4			
11				8				18				
12				6					9			
13				24				2	2			
14		2.5		3			6		13			
15								40				
16									2.5			
17												
18			1									
19			37									
20									2			
21								12.5				
22				24		1	3	4				
23						3.5						
24				54		1.5						
25				2		12		14				
26												
27												
28							2					
29												
30								2				
31												
Totals	0	5.5	38	146	0	35	47	132.5	105.5	14	0	0
Annual total	523.5											

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1976

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					8			2	3			
2									11			
3					27		3		3			
4					7			4	3			
5				6	4		15					
6				5		4	7	11		1		
7				5		2		18				
8				15			1					
9				8.5	6							
10				1		1	1	19	5			
11						1		1				
12								3				
13								3.5				
14							1	5	30			
15					2		2					
16							3					
17							13	15	3			
18							10	16				
19						4		16				
20				1			6					
21				2		12	4					
22				34		1	2					
23								5				
24						2	4					
25							6	1.5				
26												
27			1									
28								6				
29				22				2				
30				8			1					
31							30	3		28		
Totals	0	0	1	107.5	54	27	109	131	58	29	0	0
Annual total	516.5											

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1979

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1										2		
2								14				
3												
4					22	3			2			
5												
6									3			
7						17	20					
8					14	2			40			
9					15				9			
10								5				
11	15							1	8			
12					10			12				
13	7							16				
14	23			32				2				
15	8									3		
16						14		13	3			
17			20					22	7			
18			5				2					
19						3	3					
20					3					4		
21					8		6					
22	8				17							
23					38			3				
24					19		2	12				
25							4					
26												
27							3					
28			3				4					
29			44				16					
30	13			46				7				
31			2									
Totals	74	0	74	78	146	39	60	107	72	9	0	0
Annual total	659											

DAILY RAINFALL (mm)

STATION : BOORAMA Year : 1980

Mois	J	F	M	A	M	J	J	A	S	O	N	D
1					23.0		6.0		15.0			
2							3.0		4.0			
3							4.0			10.0		
4				1.5					1.0			
5							30.0	8.0	9.0			
6							18.0	3.0				
7						8.0	4.0		5.0			
8									12.0			
9									13.0			
10							4.0					
11					3.0		5.0					
12									3.0			
13							5.0	1.0				
14												
15								1.0				
16				2.0				4.0				
17				5.0				4.0				
18								27.0				
19								4.0				
20										4.0		
21										5.0		
22								3.0				
23						1.0		11.0				
24						1.0	6.0	4.0				
25				2.0			4.0	2.0	3.0			
26							10.0	8.0				
27				3.0			2.0	12.0				
28				4.0				20.0				
29									1.0			
30		-		13.0				5.0				
31		-		-		-			-		-	
Totals	0	0	0	30.5	26.0	10.0	101.0	117.0	66.0	19.0	0	0
Annual total	369.5											

ELEMENTS OF CLIMATE

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STATION : BERRERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1908														
Temperature °C	Maximum	31.0	31.0	32.5	41.0	41.5	44.5	45.0	44.5	43.0	37.0	34.0	31.0	38.0
	Minimum	14.5	14.0	13.0	21.5	25.0	27.0	23.5	23.5	23.0	19.0	19.0	18.5	20.1
	Lowest maximum	29.0	27.0	28.5	27.0	34.0	36.0	39.5	40.5	36.0	32.0	30.0	26.5	32.2
	Highest minimum	20.5	19.5	21.0	26.5	31.5	32.0	34.5	27.5	25.5	25.0	25.0	22.0	25.9
	Mean													
	Mean maximum	29.0	30.0	30.5	33.0	37.0	42.0	43.0	42.5	41.0	34.5	32.5	29.5	35.4
	Mean minimum	15.0	16.5	17.5	24.5	26.5	30.0	30.0	20.0	19.5	22.0	21.0	20.0	21.9
Humidity %	Maximum	89.0	94.0	94.0	100	100	85.0	86.0	80.0	80.0	85.0	89.0	100	90.2
	Minimum	49.0	42.0	56.0	43.0	20.0	29.0	30.0	30.0	30.0	30.0	44.0	33.0	36.3
	Mean	70.0	66.0	71.0	70.0	64.0	51.0	49.0	46.0	49.0	56.0	59.0	68.0	60.0
Prevailing wind														
Year 1909														
Temperature °C	Maximum	29.0	29.5	32.0	34.5	39.5	41.0	40.5	40.0	39.5	37.0	38.0	39.0	36.6
	Minimum	20.0	20.5	23.0	25.5	24.0	27.0	27.0	27.0	24.5	22.0	19.5	20.5	23.4
	Lowest maximum	27.5	27.5	29.5	32.0	32.0	37.5	38.5	36.0	36.5	30.0	28.5	32.5	32.3
	Highest minimum	24.5	24.5	26.5	28.0	30.0	34.0	36.5	31.5	28.0	29.0	27.0	25.5	28.8
	Mean													
	Mean maximum	28.5	28.5	30.5	33.5	34.5	39.0	40.0	39.5	37.5	33.0	30.5	33.0	33.9
	Mean minimum	22.0	22.5	24.5	27.0	27.5	29.5	28.0	27.5	26.5	26.0	23.5	22.0	25.5
Humidity %	Maximum	100	79.0	84.0	90.0	100	78.0	79.0	79.0	89.0	100	100	94.0	89.0
	Minimum	46.0	59.0	59.0	53.0	40.0	30.0	30.0	30.0	30.0	31.0	31.0	49.0	42.3
	Mean	74.0	72.0	71.0	71.0	65.0	42.0	35.0	34.0	47.0	62.0	66.0	66.0	58.8
Prevailing wind														

ELEMENTS OF CLIMATE

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STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1910														
Temperature °C	Maximum	34.0	33.0	33.5	35.0	39.0	42.0	41.0	40.5	40.5	40.5	36.0	34.0	38.3
	Minimum	18.5	19.0	22.0	22.5	23.5	27.0	27.0	28.0	27.5	22.5	19.0	19.0	23.0
	Lowest maximum	31.0	31.5	32.0	32.0	33.5	38.5	39.0	38.0	38.0	34.5	33.0	31.5	34.4
	Highest minimum	23.0	22.5	25.5	27.5	29.0	32.5	32.5	32.5	30.5	29.0	25.0	24.0	27.8
	Mean	28.5	28.0	29.0	31.5	34.0	36.5	35.5	35.0	34.5	30.5	26.5	27.0	31.4
	Mean maximum	32.5	32.5	32.5	34.0	35.5	40.0	40.0	39.0	39.5	36.5	34.5	33.0	35.8
	Mean minimum	20.5	21.0	23.5	25.0	27.0	30.5	31.0	30.5	29.0	26.5	22.0	21.0	25.6
Humidity %	Maximum	94.0	89.0	94.0	90.0	95.0	100	96.0	89.0	85.0	84.0	84.0	84.0	90.3
	Minimum	49.0	39.0	39.0	52.0	49.0	30.0	32.0	36.0	32.0	36.0	43.0	45.0	40.2
	Mean	68.0	69.0	71.0	70.0	72.0	57.0	42.0	46.0	42.0	60.0	62.0	66.0	60.4
Prevailing wind		NE	NE	NE	NE	NE	SW	SW	SW	SW	NE	NE	NE	NE
Year 1911														
Temperature °C	Maximum	33.5	33.0	34.5	33.0	43.0	44.0	42.0	40.5	40.0	34.5	31.0	29.0	36.5
	Minimum	20.5	19.5	24.0	24.5	26.0	29.0	30.0	29.5	27.0	24.5	21.0	17.5	24.4
	Lowest maximum													
	Highest minimum													
	Mean	27.5	27.0	28.5	30?0	32.0	36.5	35.0	35.0	34.0	31.0	26.5	25.0	30.7
	Mean maximum	28.0	32.0	33.0	34.0	37.5	42.0	40.0	39.5	38.0	32.0	29.5	28.0	34.5
	Mean minimum	23.0	21.5	24.5	25.0	27.5	30.0	30.5	31.0	29.5	26.0	23.5	21.5	26.1
Humidity %	Maximum													
	Minimum													
	Mean	68.0	74?0	72.0	68.0	59.0	42.0	35.0	36.0	47.0	65.0	72.0	76.0	59.5
Prevailing wind														

ELEMENTS OF CLIMATE

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STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1912														
Temperature °C	Maximum	29.0	29.0	30.5	35.5	40.0	42.0	40.5	41.0	40.5	34.0	32.0	32.0	35.5
	Minimum	19.5	19.5	19.0	23.5	25.0	26.0	30.0	31.0	25.0	23.0	18.5	19.0	23.3
	Lowest maximum													
	Highest minimum													
	Mean	25.0	25.5	26.5	28.5	31.5	34.5	35.5	35.0	32.0	29.5	27.0	26.0	29.5
	Mean maximum	28.0	28.0	29.0	32.0	37.0	39.5	38.5	39.0	35.0	32.5	31.0	30.0	33.5
	Mean minimum	22.0	22.0	22.0	25.5	27.0	30.5	32.0	32.0	28.5	26.0	22.0	25.0	26.0
Humidity %	Maximum													
	Minimum													
	Mean	77.0	72.0	71.0	75.0	72.0	52.0	37.0	36.0	64.0	66.0	63.0	73.0	63.0
Prevailing wind														
Year 1913														
Temperature °C	Maximum	29.0	30.0	30.5	38.0	36.5	41.0	41.5	40.5	39.5	33.0	29.5	29.5	34.9
	Minimum	19.0	21.0	21.5	22.5	25.5	28.5	30.5	30.5	22.0	25.5	19.5	19.0	23.8
	Lowest maximum													
	Highest minimum													
	Mean	25.0	26.5	27.0	29.0	30.5	34.0	35.0	35.0	32.5	29.0	28.0	26.5	30.0
	Mean maximum	29.0	29.0	29.5	32.5	33.0	38.0	39.0	38.5	36.0	31.5	29.0	28.5	32.0
	Mean minimum	21.0	23.5	23.5	24.5	27.5	31.0	32.0	32.5	26.5	26.5	24.0	20.5	26.0
Humidity %	Maximum													
	Minimum													
	Mean	69.0	74.0	73.0	75.0	71.0	54.0	44.0	46.0	61.0	68.0	71.0	70.0	65.0
Prevailing wind														

ELEMENTS OF CLIMATE

STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1914														
Temperature °C	Maximum	28.5	29.5	30.0	32.0	37.5	40.0	40.5	40.0	40.0	37.5	30.5	29.0	34.6
	Minimum	23.0	23.0	21.0	22.0	26.0	26.5	31.0	30.5	29.5	26.5	24.5	22.5	25.5
	Lowest maximum													
	Highest minimum													
	Mean	25.5	27.5	28.0	29.0	31.5	34.5	35.5	35.5	33.0	30.0	27.5	26.5	30.3
	Mean maximum	27.5	29.0	29.5	30.5	30.5	37.5	38.5	38.0	36.5	31.5	29.0	28.0	32.2
	Mean minimum	24.5	23.5	22.5	24.5	26.5	30.0	32.5	32.5	32.0	28.5	26.0	24.0	27.3
Humidity %	Maximum													
	Minimum													
	Mean	69.0	78.0	72.0	79.0	68.0	54.0	49.0	50.0	61.0	76.0	78.0	75.0	67.4
Prevailing wind														
Year 1915														
Temperature °C	Maximum	28.0	29.0	30.0	32.0	38.5	43.5	43.0	45.0	42.0	36.0	34.5	33.5	36.3
	Minimum	22.0	22.5	23.5	26.0	28.0	30.0	32.0	30.0	27.0	24.5	20.0	17.5	25.3
	Lowest maximum													
	Highest minimum													
	Mean	26.0	26.0	27.5	29.5	32.0	34.5	34.5	35.5	34.5	29.5	28.5	26.0	30.3
	Mean maximum	27.5	28.0	29.0	31.0	34.5	39.0	41.0	41.5	38.5	34.5	33.0	31.5	34.1
	Mean minimum	23.5	24.5	26.0	27.0	30.0	31.5	33.0	32.0	30.5	25.5	23.0	21.0	27.3
Humidity %	Maximum													
	Minimum													
	Mean	78.0	76.0	78.0	80.0	70.0	58.0	50.0	47.0	51.0	67.0	70.0	71.0	66.3
Prevailing wind														

ELEMENTS OF CLIMATE

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STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1916														
Temperature °C	Maximum	30.5	31.0	31.0	33.0	40.5	42.5	42.0	41.5	41.5	37.0	34.0	32.5	36.4
	Minimum	18.5	18.0	22.0	24.0	24.5	26.5	25.0	25.5	25.0	22.0	19.5	19.5	22.5
	Lowest maximum													
	Highest minimum													
	Mean	25.5	25.5	27.0	28.5	30.5	35.0	35.0	34.5	33.0	29.5	27.0	26.0	29.8
	Mean maximum	29.0	29.0	29.5	31.5	34.0	40.0	39.5	39.0	37.5	34.0	30.5	30.5	33.7
	Mean minimum	22.0	21.5	24.5	26.0	27.0	30.0	30.5	30.0	28.5	25.0	22.0	21.5	25.7
Humidity %	Maximum													
	Minimum													
	Mean	72.0	73.0	80.0	76.0	70.0	48.0	49.0	51.0	56.0	65.0	62.0	72.0	64.5
Prevailing wind														
Year 1917														
Temperature °C	Maximum	32.5	30.5	30.5	34.0	42.0	43.0	43.0	43.5	41.5	36.0	33.0	32.5	33.5
	Minimum	19.0	19.5	20.0	23.5	25.5	28.5	30.0	24.5	26.5	20.0	18.5	19.0	22.9
	Lowest maximum													
	Highest minimum													
	Mean	26.0	25.5	26.0	29.0	31.0	36.5	36.0	34.5	34.0	30.0	27.0	26.0	30.1
	Mean maximum	29.5	29.5	29.5	31.5	34.5	40.0	41.5	40.5	39.5	34.0	32.0	30.5	34.4
	Mean minimum	22.5	21.5	22.0	26.0	27.0	30.5	31.5	31.0	30.0	25.0	21.0	21.0	25.8
Humidity %	Maximum													
	Minimum													
	Mean	77.0	75.0	75.0	78.0	70.0	46.0	42.0	46.0	50.0	68.0	63.0	69.0	63.3
Prevailing wind														

ELEMENTS OF CLIMATE

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STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1918														
Temperature °C	Maximum	30.5	29.5	31.0	34.5	42.0	43.0	44.0	43.0	42.0	35.0	34.0	32.0	36.7
	Minimum	16.5	19.0	21.5	22.5	25.0	27.0	28.0	29.5	20.5	22.0	18.5	19.0	22.4
	Lowest maximum													
	Highest minimum													
	Mean	24.5	24.5	27.0	28.0	31.5	35.0	36.5	36.0	31.5	29.0	27.0	26.0	29.7
	Mean maximum	29.0	28.0	29.5	30.5	37.0	40.5	42.0	40.5	36.5	33.0	32.5	31.5	34.2
	Mean minimum	20.0	21.0	24.0	25.0	27.0	30.0	31.0	31.0	26.5	25.0	23.0	21.0	25.4
Humidity %	Maximum													
	Minimum													
	Mean	70.0	75.0	82.0	82.0	65.0	50.0	43.0	44.0	62.0	73.0	72.0	71.0	66.0
Prevailing wind														
Year 1919														
Temperature °C	Maximum	32.5	32.0	32.0	34.0	42.5	44.0	44.0	45.0	42.5	35.5	34.5	33.5	37.7
	Minimum	18.5	20.0	21.0	20.5	26.5	28.0	23.0	30.0	23.5	21.0	18.5	19.0	22.5
	Lowest maximum													
	Highest minimum													
	Mean	26.0	26.0	27.0	29.0	32.0	36.0	36.0	36.0	32.0	29.0	27.0	26.0	30.2
	Mean maximum	30.0	29.5	30.0	31.5	35.5	41.5	41.5	41.0	36.0	33.5	32.5	32.0	34.9
	Mean minimum	21.5	23.0	23.5	25.5	28.0	30.0	31.0	31.0	28.0	24.5	21.0	20.5	25.4
Humidity %	Maximum													
	Minimum													
	Mean	77.0	77.0	77.0	81.0	73.0	47.0	54.0	51.0	69.0	68.0	66.0	67.0	67.1
Prevailing wind														

ELEMENTS OF CLIMATE

STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1920														
Temperature °C	Maximum	32.5	31.0	31.5	34.0	35.5	43.5	43.0	43.0	42.5	37.0	35.0	35.0	37.0
	Minimum	18.0	21.0	21.0	22.0	26.0	26.5	28.5	28.0	26.0	22.5	19.0	18.0	23.0
	Lowest maximum													
	Highest minimum													
	Mean	25.5	26.5	27.0	28.5	30.5	35.5	36.0	35.5	33.5	30.0	27.5	26.5	30.2
	Mean maximum	30.5	29.5	30.0	31.5	34.0	41.0	41.5	40.5	38.5	34.0	32.5	31.5	34.6
	Mean minimum	20.5	23.0	23.5	25.0	27.0	30.0	31.0	30.5	28.5	25.5	22.0	21.0	25.6
Humidity %	Maximum													
	Minimum													
	Mean	71.0	79.0	79.0	79.0	77.0	52.0	45.0	47.0	52.0	70.0	72.0	70.0	60.2
Prevailing wind														
Year 1921														
Temperature °C	Maximum	33.5	31.0	31.0	34.5	41.0	44.0	44.5	43.0	43.5	36.5	36.0	33.0	37.6
	Minimum	18.5	18.5	18.0	23.0	26.0	27.5	27.0	28.5	25.0	20.5	19.5	18.0	22.5
	Lowest maximum													
	Highest minimum													
	Mean	25.0	25.0	25.5	29.0	32.0	36.0	36.0	35.5	34.5	28.5	27.0	25.5	30.0
	Mean maximum	30.5	29.0	29.5	32.0	36.0	42.0	41.5	40.5	39.5	33.0	31.5	31.0	34.7
	Mean minimum	20.5	21.0	22.5	26.0	27.5	30.0	31.0	30.5	29.0	24.0	20.0	18.0	25.0
Humidity %	Maximum	85.0	89.0	90.0	90.0	85.0	77.0	77.0	62.0	77.0	94.0	85.0	89.0	83.3
	Minimum	51.0	55.0	60.0	72.0	38.0	38.0	38.0	39.0	43.0	55.0	61.0	54.0	50.3
	Mean	74.0	75.0	80.0	82.0	70.0	51.0	51.0	51.0	57.0	72.0	75.0	77.0	67.9
Prevailing wind														

ELEMENTS OF CLIMATE

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STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1922														
Temperature °C	Maximum	32.5	31.5	32.5	32.5	38.0	45.0	44.5	43.5	43.5	39.0	35.0	33.5	37.6
	Minimum	17.0	18.0	22.0	23.0	23.0	27.5	30.5	28.0	23.5	22.0	21.0	17.5	22.8
	Lowest maximum													
	Highest minimum													
	Mean	24.5	25.5	26.0	28.0	31.0	35.0	35.0	34.0	34.0	28.0	27.0	26.0	29.5
	Mean maximum	30.5	29.5	30.5	31.5	34.5	41.5	41.0	40.0	39.0	34.0	32.0	31.5	34.6
	Mean minimum	18.5	20.5	23.5	25.0	26.5	29.5	31.5	30.5	28.5	24.0	23.0	20.0	25.1
Humidity %	Maximum	90.0	90.0	90.0	90.0	90.0	70.0	60.0	70.0	77.0	85.0	89.0	89.0	82.5
	Minimum	64.0	68.0	72.0	61.0	41.0	36.0	36.0	38.0	38.0	56.0	46.0	52.0	50.7
	Mean	74.0	80.0	80.0	82.0	76.0	54.0	46.0	58.0	64.0	75.0	77.0	82.0	70.7
Prevailing wind														
Year 1923														
Temperature °C	Maximum													
	Minimum													
	Lowest maximum													
	Highest minimum													
	Mean	24.5	25.0	27.0	28.5	30.5	35.5	36.0	35.0	34.0	29.0	27.5	26.0	29.9
	Mean maximum													
	Mean minimum													
Humidity %	Maximum													
	Minimum													
	Mean	75.0	80.0	80.0	80.0	75.0	53.0	46.0	57.0	62.0	74.0	76.0	83.0	70.1
Prevailing wind														

ELEMENTS OF CLIMATE

STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1924														
Temperature °C	Maximum	33.5	32.5	32.0	34.5	41.5	45.5	45.0	44.0	43.0	36.5	35.0	33.5	38.0
	Minimum	17.0	18.5	21.0	22.5	25.0	26.5	30.0	26.0	26.0	22.0	18.5	17.0	22.5
	Lowest maximum													
	Highest minimum													
	Mean	25.5	26.0	27.5	29.5	32.0	35.0	35.5	35.0	33.5	30.0	27.5	26.5	30.3
	Mean maximum	32.0	29.5	30.0	32.0	35.0	41.5	42.5	39.5	38.0	34.0	32.5	31.5	34.8
	Mean minimum	22.0	23.5	23.0	24.5	27.0	30.0	31.0	30.5	28.0	24.5	21.0	20.0	25.4
Humidity %	Maximum													
	Minimum													
	Mean	78.0	76.0	85.0	84.0	75.0	56.0	49.0	50.0	60.0	70.0	65.0	69.0	68.1
Prevailing wind														
Year 1925														
Temperature °C	Maximum	33.5	33.0	31.5	41.0	41.5	43.0	42.0	41.0	41.0	33.5	31.5	30.0	36.9
	Minimum	17.0	17.5	19.5	22.0	24.0	25.0	27.5	27.5	23.5	22.5	20.5	28.5	22.1
	Lowest maximum													
	Highest minimum													
	Mean	26.0	26.0	27.5	29.5	32.5	35.0	36.0	35.5	33.0	29.5	28.0	26.5	30.4
	Mean maximum	31.0	29.5	30.0	32.0	36.0	40.5	40.0	39.5	36.0	32.0	30.0	29.0	33.3
	Mean minimum	19.0	20.0	21.5	24.0	26.0	29.5	31.0	30.5	28.0	24.5	23.5	20.0	24.8
Humidity %	Maximum													
	Minimum													
	Mean	67.0	71.0	75.0	75.0	65.0	47.0	47.0	51.0	65.0	75.0	78.0	60.0	64.7
Prevailing wind														

ELEMENTS OF CLIMATE

STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1926														
Temperature °C	Maximum	29.5	29.5	31.0	32.5	34.5	39.5	37.5	36.5	40.0	36.0	31.0	30.0	34.0
	Minimum	19.0	22.0	23.5	25.0	24.5	24.5	28.0	30.0	26.0	22.0	21.5	17.5	23.6
	Lowest maximum	26.5	28.0	28.0	30.5	29.5	32.5	36.0	38.0	33.5	31.0	29.0	27.0	28.3
	Highest minimum	25.5	26.0	27.0	28.0	30.0	32.5	33.0	33.0	31.5	28.0	26.0	24.5	28.8
	Mean	26.0	27.0	28.0	29.0	31.5	34.5	35.5	35.5	33.5	30.5	28.0	26.0	30.4
	Mean maximum	28.0	29.0	30.0	31.5	34.0	39.0	39.5	40.0	37.0	33.0	30.0	28.5	33.3
	Mean minimum	22.0	24.0	25.5	26.5	28.0	30.0	31.0	31.5	29.0	25.5	24.0	21.0	26.5
Humidity %	Maximum	90.0	91.0	95.0	91.0	88.0	80.0	73.0	71.0	84.0	84.0	87.0	86.0	85.0
	Minimum	53.0	68.0	68.0	59.0	33.0	23.0	34.0	37.0	33.0	54.0	52.0	57.0	47.6
	Mean	77.0	81.0	81.0	78.0	70.0	49.0	53.0	54.0	65.0	73.0	71.0	72.0	68.7
Prevailing wind		NE	NE	NE	NE	NE	SW	SW	SW	E	NE	NE	NE	NE
Year 1927														
Temperature °C	Maximum	28.5	30.0	30.0	33.5	41.0	41.5	42.0	41.0	40.0	38.5	31.5	30.0	35.6
	Minimum	17.5	18.5	19.5	22.0	26.0	23.0	21.5	27.0	27.0	22.5	23.0	18.0	22.1
	Lowest maximum	27.0	27.5	28.0	25.5	31.5	35.5	37.5	37.5	33.0	30.5	28.0	28.0	30.8
	Highest minimum	23.5	25.5	25.5	27.5	31.0	32.5	32.0	32.5	31.5	29.0	25.5	26.5	28.5
	Mean	26.5	26.5	26.5	28.0	31.5	36.0	35.5	35.5	34.5	30.0	27.5	26.5	30.4
	Mean maximum	27.5	28.5	29.0	30.5	34.5	40.0	39.5	39.5	38.5	32.5	30.0	29.0	33.3
	Mean minimum	20.0	23.0	23.0	25.5	27.5	28.5	27.0	30.5	28.5	25.5	24.0	23.5	25.5
Humidity %	Maximum	86.0	91.0	87.0	91.0	96.0	86.0	92.0	82.0	80.0	84.0	87.0	86.0	87.3
	Minimum	56.0	64.0	61.0	61.0	37.0	23.0	26.0	21.0	24.0	50.0	58.0	54.0	44.6
	Mean	72.0	79.0	74.0	79.0	73.0	53.0	59.0	47.0	52.0	68.0	72.0	74.0	66.8
Prevailing wind		NE	NE	NE	NE	NE	SW	SW	SW	SW	NE	NE	NE	NE

ELEMENTS OF CLIMATE

STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1928														
Temperature °C	Maximum	29.5	29.0	30.5	31.5	39.5	42.5	42.5	41.5	41.5	36.0	33.0	30.5	35.6
	Minimum	19.0	19.5	22.0	22.0	26.0	28.0	29.0	26.0	26.0	23.0	21.5	17.0	23.3
	Lowest maximum	27.5	28.0	28.5	30.0	31.5	36.0	38.0	37.5	33.0	31.5	28.5	26.5	31.4
	Highest minimum	25.5	23.5	26.5	27.5	29.5	33.5	33.0	33.0	32.0	28.5	27.0	24.5	28.7
	Mean	26.0	26.0	27.0	28.5	31.0	35.5	36.0	35.5	33.5	30.0	28.0	26.0	30.3
	Mean maximum	28.5	28.5	29.5	30.5	33.5	40.5	40.5	39.5	37.5	33.0	30.0	28.5	33.3
	Mean minimum	22.0	21.5	24.0	25.0	27.0	30.5	31.0	30.5	28.5	25.5	24.5	20.5	25.9
Humidity %	Maximum	87.0	86.0	91.0	91.0	92.0	84.0	74.0	74.0	84.0	87.0	86.0	86.0	85.2
	Minimum	54.0	54.0	57.0	63.0	37.0	24.0	20.0	27.0	36.0	55.0	55.0	44.0	43.8
	Mean	75.0	72.0	79.0	78.0	72.0	48.0	44.0	48.0	61.0	70.0	74.0	67.0	65.7
Prevailing wind		NE	NE	NE	NE	NE	SW	SW	SW	NE	NNE	NNE	NE	NE
Year 1929														
Temperature °C	Maximum	28.5	29.5	32.0	33.5	40.5	41.5	40.5	41.5	41.0	34.5	31.0	30.5	35.4
	Minimum	18.5	21.0	21.0	25.0	25.5	28.5	27.0	28.0	27.5	22.0	19.5	20.0	23.6
	Lowest maximum	27.0	28.0	28.5	30.5	31.5	37.0	36.5	37.5	33.5	30.0	29.5	28.5	31.5
	Highest minimum	24.0	25.5	25.5	27.5	30.0	33.5	32.5	32.5	32.0	28.0	25.5	25.5	28.5
	Mean	23.5	25.3	26.5	29.2	33.0	35.0	33.8	34.8	34.2	28.2	25.2	25.2	29.5
	Mean maximum													
	Mean minimum													
Humidity %	Maximum	86.0	86.0	87.0	87.0	84.0	92.0	70.0	68.0	88.0	84.0	87.0	91.0	84.2
	Minimum	58.0	61.0	57.0	64.0	39.0	28.0	31.0	38.0	33.0	50.0	52.0	60.0	47.6
	Mean	74.0	77.0	76.0	77.0	67.0	49.0	45.0	50.0	61.0	69.0	71.0	76.0	66.0
Prevailing wind		NE	NE	NE	N	N	SW	SW	SW	SW	NNE	SE	NE	NNE

ELEMENTS OF CLIMATE

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STATION : BERBERA

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1930														
Temperature °C	Maximum	29.5	29.5	30.5	32.0	39.5	42.0	42.0	42.0	42.0	34.0	32.0	30.0	35.4
	Minimum	20.5	19.5	21.0	21.5	21.5	26.5	24.5	30.5	26.5	21.0	21.5	21.0	23.0
	Lowest maximum	26.0	27.5	28.5	28.0	31.5	37.0	38.0	37.5	33.0	30.5	28.5	28.0	31.2
	Highest minimum	25.0	25.0	26.0	26.5	28.5	33.5	33.0	34.5	31.0	27.0	26.0	26.0	28.5
	Mean	26.0	26.0	27.5	28.5	31.5	35.0	35.5	35.0	34.5	29.5	27.5	26.5	30.3
	Mean maximum	28.5	28.5	29.5	30.5	35.0	39.5	40.0	39.5	37.5	32.0	30.0	29.0	33.3
	Mean minimum	22.5	22.5	24.0	23.5	25.0	30.0	30.5	32.0	29.5	25.5	23.0	23.0	25.9
Humidity %	Maximum	100	86.0	87.0	91.0	92.0	81.0	71.0	73.0	88.0	95.0	86.0	86.0	86.3
	Minimum	58.0	53.0	60.0	62.0	27.0	29.0	24.0	26.0	28.0	57.0	52.0	54.0	44.2
	Mean	77.0	73.0	77.0	77.0	66.0	51.0	44.0	45.0	56.0	73.0	68.0	71.0	64.8
Prevailing wind		NE	NE	NE	NE	NW	SW	SW	SW	NNE	NNE	NNE	NNE	NNE NE
Year 1931														
Temperature °C	Maximum	29.0	30.5	31.5	32.5	39.5	42.5	41.5	41.5	41.0	38.0	31.0	30.0	35.7
	Minimum	20.5	23.5	22.0	25.5	24.5	28.5	27.5	29.0	26.5	22.5	21.5	16.5	24.0
	Lowest maximum	27.5	28.5	29.0	31.0	31.5	35.0	38.5	36.0	33.0	31.0	29.0	27.0	31.4
	Highest minimum	25.0	27.5	28.5	27.5	30.0	33.0	33.5	33.5	32.5	29.0	24.5	22.5	28.9
	Mean	25.5	27.5	27.8	29.1	31.4	34.8	35.2	35.0	33.2	30.1	26.5	24.0	30.0
	Mean maximum	28.5	29.5	30.0	31.5	34.5	40.0	40.5	38.5	38.0	33.5	30.0	30.0	33.7
	Mean minimum	23.0	25.5	25.0	26.5	28.0	31.0	32.0	31.0	28.5	26.0	22.5	19.5	26.5
Humidity %	Maximum	86.0	91.0	91.0	88.0	92.0	88.0	68.0	67.0	88.0	84.0	86.0	82.0	84.3
	Minimum	53.0	63.0	64.0	69.0	33.0	19.0	32.0	30.0	27.0	39.0	51.0	41.0	43.4
	Mean	72.0	78.0	79.0	80.0	75.0	50.0	47.0	44.0	60.0	67.0	67.0	68.0	65.6
Prevailing wind		NE	NNE	NNE	NNE	NNE	SW	SW	SW	N	NE	NE	NNE	NE NNE

ELEMENTS OF CLIMATE

STATION : SAYLAC

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1924														
Temperature °C	Maximum			40.5	39.5	43.5		37.0	38.0	35.0	32.5	31.5	29.5	36.3
	Minimum							32.5	20.5	30.0	28.0	26.0	25.0	27.0
	Lowest maximum													
	Highest minimum													
	Mean													
	Mean maximum			37.0	36.0	36.0	39.0	36.0	36.0	34.0	31.5	30.0	28.5	34.2
	Mean minimum							33.0	33.0	31.5	29.0	28.0	25.5	30.0
Humidity %	Maximum													
	Minimum													
	Mean													
Prevailing wind														
Year 1925														
Temperature °C	Maximum	28.5	28.5	31.5	35.0	37.0	41.5	42.0	41.5	37.0	34.0	31.0	29.0	34.7
	Minimum			24.0	24.0	26.5	27.5	27.5	26.0	24.0	24.0	21.5	13.5	23.9
	Lowest maximum													
	Highest minimum													
	Mean													
	Mean maximum	28.0	27.5	29.5	32.0	35.0	38.0	39.0	38.5	34.0	32.5	29.0	28.0	32.6
	Mean minimum			25.5	25.0	27.0	29.0	28.5	28.5	27.0	25.5	24.5	20.5	26.1
Humidity %	Maximum													
	Minimum													
	Mean													
Prevailing wind														

ELEMENTS OF CLIMATE

STATION : SAYLAC

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1930														
Temperature °C	Maximum	34.5	34.5	34.5	36.5	38.5	40.5	43.0	44.0	41.0	36.0	36.5	31.0	37.5
	Minimum	21.5	19.5	20.5	22.5	22.5	24.5	25.5	24.5	24.5	22.0	20.0	19.5	22.3
	Lowest maximum													
	Highest minimum													
	Mean													
	Mean maximum	30.5	31.5	32.5	35.0	37.0	38.0	40.5	40.5	37.5	34.0	31.5	29.5	34.8
	Mean minimum	23.0	22.5	23.0	25.0	25.0	27.0	28.5	28.0	27.0	24.5	22.5	21.5	24.8
Humidity %	Maximum													
	Minimum													
	Mean													
Prevailing wind														
Year 1932														
Temperature °C	Maximum	30.5	29.5	30.5	32.0	35.0	40.0	41.0	40.0	38.0	33.0		29.5	34.5
	Minimum	19.5	22.0	22.0	23.5	25.0	24.5	26.5	25.5	24.0	23.5	21.0	18.5	23.0
	Lowest maximum													
	Highest minimum													
	Mean													
	Mean maximum	28.5	29.0	28.5	31.0	33.5	36.0	36.5	37.5	35.5	29.5		28.5	32.3
	Mean minimum	22.0	24.0	24.5	25.5	26.5	28.0	28.5	28.5	27.5	25.0	22.5	20.5	25.3
Humidity %	Maximum													
	Minimum													
	Mean													
Prevailing wind														

ELEMENTS OF CLIMATE

STATION : SAYLAC

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1935														
Temperature °C	Maximum	29.0	29.0	30.5	32.0	34.5	39.0	4.05	40.0	40.5	32.5	31.0	29.5	34.0
	Minimum	19.0	18.0	19.5	23.5	26.0	25.5	27.0	25.5	26.5	19.5	22.0	21.0	22.8
	Lowest maximum													
	Highest minimum													
	Mean													
	Mean maximum	28.5	28.5	29.5	30.5	32.0	35.5	39.0	37.0	36.0	31.5	30.0	28.5	32.2
	Mean minimum	21.5	22.5	23.5	25.5	26.5	28.0	29.0	28.5	28.5	24.0	24.5	22.5	25.4
Humidity %	Maximum													
	Minimum													
	Mean													
Prevailing wind														
Year 1936														
Temperature °C	Maximum	29.0	30.0	30.0	33.0	36.5	40.5	41.0	40.5	39.5	33.5	31.5	31.5	34.7
	Minimum	20.5	22.0	21.5	22.5	23.5	26.0	27.5	27.5	22.0	22.0	15.5	19.0	22.7
	Lowest maximum													
	Highest minimum													
	Mean													
	Mean maximum	28.5	28.5	29.5	31.0	33.5	36.0	39.5	38.0	35.5	32.0	30.0	29.0	32.6
	Mean minimum	23.0	23.5	24.0	25.0	26.5	28.0	29.0	28.5	27.0	25.0	22.0	22.5	25.7
Humidity %	Maximum													
	Minimum													
	Mean													
Prevailing wind														

ELEMENTS OF CLIMATE

STATION : BAYLAC

Months		J	F	M	A	M	J	J	A	S	O	N	D	Year
Year 1937														
Temperature °C	Maximum	29.0	29.5	30.5	32.0	34.5	40.0	41.5	40.0	39.5	36.0	31.0	29.5	34.4
	Minimum	19.5	21.0	22.0	22.0	23.5	24.0	27.5	25.0	25.5	21.0	20.5	19.0	22.5
	Lowest maximum													
	Highest minimum													
	Mean													
	Mean maximum	28.5	28.5	29.0	30.0	32.5	35.5	39.5	38.5	34.0	31.5	30.0	28.0	32.1
	Mean minimum	21.5	23.5	24.5	24.0	26.5	27.5	29.0	28.5	28.0	25.0	23.5	20.5	25.2
Humidity %	Maximum													
	Minimum													
	Mean													
Prevailing wind														
Year														
Temperature °C	Maximum													
	Minimum													
	Lowest maximum													
	Highest minimum													
	Mean													
	Mean maximum													
	Mean minimum													
Humidity %	Maximum													
	Minimum													
	Mean													
Prevailing wind														

STATION : GED DEEBLE MONTH : May 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1						
2						
3						
4						
5	35	21	28	94	30	65
6	34	22	28	95	14	65
7	34	22	28	90	20	64
8	35	20	27.5	95	16	60
9	34	18	26	94	17	66
10	33	21	27	90	35	72
11	33	22	27.5	95	41	75
12	32	20	26	98	45	75
13	34	22	28	94	31	66
14	34	21	27.5	92	24	71
15	33	20	26.5	96	27	68
16	31	20	25.5	95	40	68
17	32	18	25	91	35	67
18	34	19	26.5	98	26	66
19	35	19	27	93	20	66
20	35	21	28	96	18	62
21	34	22	28	86	17	61
22	35	23	29	80	17	55
23	34	20	27	80	5	40
24	34	19	26.5	78	17	52
25	34	19	26.5	81	12	50
26	35	21	28	85	15	52
27	36	22	29	1	23	59
28	35	23	29.5	82	21	55
29	35	22	28.5	80	27	53
30	28	22	27.5	74	34	65
31	33	21	27	75	24	55
mean	33.9	20.7	27.	87	23.7	62.2

STATION : GED DEEBLE MONTH : June 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	34	21	27.5	73	31	55
2	33	21	27	80	27	60
3	35	22	28.5	78	16	51
4	36	23	29.5	88	16	46
5	34	21	27.5	76	30	52
6	32	21	26.5	78	32	59
7	33	20	26.5	83	37	61
8	35	20	27.5	73	32	55
9	34	21	27.5	83	33	62
10	33	22	27.5	78	40	61
11	34	22	28	79	25	57
12	34	22	28	74	21	57
13	35	22	28.5	72	29	54
14	35	21	28	75	33	54
15	35	23	29	73	30	50
16	34	22	28	79	25	51
17	35	23	29	71	26	51
18	37	24	30.5	64	22	52
19	35	22	28.5	71	31	59
20	34	23	28.5	73	27	51
21	33	22	27.5	76	21	50
22	35	22	28.5	74	27	45
23	34	22	28	72	31	56
24	35	21	28	81	18	57
25	33	23	28	70	34	64
26	32	22	27	79	40	62
27	32	22	27	68	37	53
28	33	22	27.5	67	33	53
29	34	23	28.5	70	41	60
30	34	23	28.5	70	34	55
31						
mean	34.1	22	28.0	74.6	30.8	54.8

STATION : GED DEEBLE

MONTH : July 1980

Date	Temperature (Co)			Relative Humidity		
	Maximum	Minimum		Maximum	Minimum	Mean
1	35	23		80	40	62
2	34	23		76	43	62
3	33	23		77	47	63
4	33	23		72	42	59
5	31	22		79	46	62
6	32	17		70	28	55
7	32	22		70	34	55
8	34	22		65	30	51
9	32	22		74	42	63
10	32	21		80	42	61
11	32	21		79	35	57
12	32	22		80	40	60
13	33	23		76	39	57
14	32	22		78	40	60
15	32	22		72	28	50
16	33	22		70	29	50
17	34	23		62	28	47
18	34	23		90	37	62
19	33	21		82	39	61
20	33	21		82	40	61
21	30	21		79	48	60
22	33	21		77	40	58
23	33	22		66	41	53
24	32	22		77	43	60
25	31	23		79	45	60
26	31	23		100	44	72
27	30	23		93	36	64
28	31	22		97	33	64
29	33	23		92	31	55
30	34	22		85	30	57
31	36	23		92	24	58
Mean	33.6					

STATION : GED DEEBLE MONTH : August 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	35	22	28.5	79	32	59
2	35	22	28.5	72	29	53
3	35	22	28.5	71	23	51
4	33	21	27	74	35	55
5	33	23	28	68	36	57
6	32	22	27	74	48	62
7	29	22	25.5	82	57	70
8	30	22	26	77	52	66
9	34	22	28	80	32	56
10	31	23	27	84	47	61
11	32	22	27	66	36	51
12	33	23	28	72	25	55
13	33	23	28	71	32	53
14	33	20	26.5	91	40	68
15	32	19	25.5	93	29	59
16	33	21	27	55	19	40
17	34	22	28	66	56	47
18	32	21	26.5	87	34	55
19	33	21	27	70	31	53
20	34	22	28	66	32	52
21	34	22	28	71	34	55
22	31	18	24.5	98	41	65
23	30	22	26	88	33	52
24	31	22	26.5	72	38	55
25	32	21	26.5	72	41	60
26	32	21	26.5	70	38	57
27	33	21	27	70	37	57
28	33	22	27.5	81	38	58
29	33	22	27.5	83	37	60
30	33	19	26	100	35	61
31	32	21	26.5	64	26	45
Mean	32.6	21.	27.0	77.4	35.7	54.4

STATION : GED DEBELE MONTH : September 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	31	21	26	74	34	57
2	33	23	28	80	31	51
3	33	24	28.5	74	34	59
4	33	23	28	94	37	68
5	33	22	27.5	84	35	59
6	33	22	27	70	34	54
7	33	23	28	63	32	50
8	33	23	28	91	35	60
9	32	22	27	92	43	70
10	33	22	27.5	85	35	64
11	34	23	28.5	75	28	57
12	35	23	29	77	28	57
13	34	23	28.5	94	25	60
14	34	23	28.5	79	22	54
15	33	23	28	72	26	65
16	35	22	28.5	82	25	64
17	34	24	29	72	31	57
18	35	23	29	100	18	54
19	36	23	29.5	77	14	55
20	35	17	26	100	6	52
21	34	21	27.5	97	31	60
22	33	21	27	90	30	64
23	33	20	26.5	86	26	54
24	31	21	26	100	49	78
25	29	22	25.5	98	23	62
26	31	20	25.5	98	32	66
27	33	22	27.5	96	31	64
28	32	21	26.5	98	24	58
29	32	21	26.5	98	16	56
30	30	19	24	100	40	62
31						
mean	33.1	21.9	27.5		29.1	59.7

STATION : GED DEEVLE MONTH : October 1980

Date	Temperature (C°)			Relative Humidity		
	Maximum	Minimum	Mean	Maximum	Minimum	Mean
1	32	22	27	100	42	69
2						
3						
4				100	25	
5	30	17	23.5	100	25	71
6	30	17	23.5	100	17	69
7	30	20	25	97	24	69
8	30	20	25	97	23	70
9	31	18	24.5	98	23	62
10	30	15	22.5	100	26	69
11	29	14	21.5	96	17	54
12	30	12	21	100	10	65
13	29	14	21.5	98	8	65
14	30	13	21.5	98	10	66
15	31	14	22.5	100	20	58
16	31	13	22	98	16	47
17	31	13	22	93	11	47
18	31	12	21.5	91	11	49
19	31	15	23	89	29	68
20	31	18	24.5	100	28	75
21	30	19	24.5	97	40	85
22	30	19	24.5	99	35	84
23	28	19	23.5	98	25	71
24	29	12	20.5	99	5	56
25	29	13	21	100	12	62
26	29	11	20	98	10	60
27	30	13	21.5	99	6	61
28	30	9	19.5	100	5	53
29	30	11	20	99	12	60
30	30	12	21	100	8	62
31	30	12	21	100	20	60
Mean	30.1	14.9	22.5	98	16	64.9

STATION : GABRI-BAXAR MONTH : May 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12	33			91		
13	31	23	27	92	49	76
14	31	23	27	95	56	80
15	31	23	27	93	43	78
16	31	22	26.5	99	43	79
17	32	21	26.5	99	41	70
18	32	22	27	98	46	75
19	33	22	27.5	95	48	75
20	33	24	28.5	98	46	72
21	36	23	29.5	88	23	59
22	36	21	28.5	78	26	57
23	36	23	29.5	100	33	72
24	37	21	29	100	10	59
25	36	23	29.5	96	21	58
26	36	24	30	100	29	67
27	36	23	29.5	100	31	64
28	37	23	30	94	32	62
29	37	26	31.5	94	26	60
30	37	26	31.5	88	33	57
31	37	26	31.5	90	36	58
mean	34.4	23.1	29.		35.4	46.7

STATION : QABRI-BAZAR MONTH : June 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	37	24	30.5	84	35	61
2	39	26	32.5	75	33	57
3	41	26	33.5	66	20	45
4	41	27	34	63	24	46
5	40	29	34.5	70	21	54
6	38	27	32.5	68	34	53
7	38	28	33	85	40	63
8	38	28	33	85	35	63
9	38	27	32.5	77	33	61
10	39	26	32.5	80	30	56
11	40	26	33	70	27	55
12	40	28	34	78	22	51
13	41	30	35.5	57	15	38
14	42	31	36.5	53	21	43
15	42	31	36.5	51	25	41
16	43	31	37	55	21	41
17	42	32	37	51	23	43
18	42	32	37	52	26	41
19	42	32	37	50	20	41
20	42	31	36.5	50	22	40
21	42	31	36.5	51	21	38
22	43	31	37	53	22	39
23	42	30	36	56	24	43
24	41	31	36	57	27	45
25	41	30	35.5	56	28	43
26	41	30	35.5	51	26	43
27	42	31	36.5	52	26	41
28	42	32	37	54	30	43
29	41	30	35.5	57	29	44
30	42	30	36	52	20	36
31						
mean	40.2	29.1	34.6	61.1	26.0	46.2

STATION : QABRI - BAKAR MONTH : July 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	43	28	35.5	52	23	40
2	42	31	36.5	54	25	46
3	42	31	36.5	58	28	46
4	40	31	35.5	56	30	46
5	40	31	35.5	71	36	52
6	39	29	34	64	39	51
7	40	30	35	64	36	51
8	41	31	36	58	35	48
9	40	31	35.5	53	30	44
10	40	30	35	54	29	44
11	40	29	34.5	53	33	43
12	40	31	35.5	57	33	44
13	41	31	36	57	25	43
14	41	31	36	52	25	42
15	41	31	36	49	34	38
16	41	31	36	41	20	34
17	41	31	36	46	22	37
18	41	31	36	50	25	39
19	42	32	37	50	22	38
20	41	31	36	53	20	41
21	41	31	36	54	29	44
22	41	31	36	50	31	42
23	41	30	35.5	48	28	40
24	41	31	36	56	30	43
25	38	29	33.5	59	35	47
26	38	29	33.5	90	37	54
27	38	27	32.5	61	28	45
28	40	31	35.5	52	28	40
29	40	30	35	54	30	44
30	40	30	35	56	28	44
31	42	31	36.5	52	23	39
mean	40.5	30.4	35.4	55.6	28.9	42.3

STATION : QABRO-BAXAR MONTH : August 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	41	30	35.5	55	29	42
2	41	30	35.5	44	19	33
3	42	31	36.5	44	19	33
4	41	32	36.5	46	19	35
5	41	30	35.5	48	26	38
6	41	31	36	48	29	42
7	38	30	34	51	34	43
8	37	30	33.5	49	37	43
9	41	31	36	48	29	39
10	40	28	34	86	33	50
11	40	29	34.5	89	26	43
12	39	30	34.5	46	14	34
13	39	29	34	45	25	36
14	37	28	32.5	52	32	43
15	39	28	33.5	56	31	46
16	28	29	33.5	54	28	43
17	39	29	34	54	25	40
18	39	28	33.5	52	31	42
19	39	28	33.5	53	30	43
20	39	28	33.5	54	29	43
21	39	28	33.5	52	29	45
22	36	28	32	53	31	43
23	40	30	35	50	34	40
24	40	30	35	58	26	46
25	40	30	35	60	30	50
26	40	30	35	61	33	48
27	36	29	32.5	62	33	49
28	41	29	35	56	32	48
29	41	29	35	66	33	50
30	40	29	34.5	59	34	48
31	40	29	34.5	60	35	48
mean						

STATION : QABRI-BAZAR MONTH : September 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	38	22	30	88	32	54
2	40	29	34.5	49	27	42
3	40	30	35	58	26	42
4	41	29	35	68	33	50
5	40	30	35	59	29	48
6	40	29	34.5	58	36	49
7	40	29	34.5	69	36	57
8	39	27	33	85	38	61
9	39	29	34	69	43	59
10	39	29	34	66	40	57
11	40	29	34.5	67	38	58
12	39	29	34	68	39	58
13	38	25	31.5	98	33	71
14	38	25	31.5	97	32	68
15	39	27	33	77	38	60
16	39	26	32.5	79	38	61
17	40	25	32.5	84	34	59
18	35	28	31.5	74	35	59
19	37	25	31	100	38	73
20	37	26	31.5	99	36	78
21	37	26	31.5	98	32	73
22	35	25	30	99	47	77
23	35	26	30.5	98	50	79
24	33	22	27.5	99	59	81
25	30	23	26.5	98	64	84
26	33	24	28.5	89	58	76
27	34	25	29.5	100	50	80
28	31	21	26	97	55	82
29	32	22	27	98	60	80
30	32	22	27	98	60	80
31						
mean	37.0	26.2	31.7	82.9	41.5	65.2

STATION : QABRI-BAXAR MONTH : October 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1						
2						
3						
4	36	24	30	92	33	68
5	35	25	30	95	42	71
6	35	26	30.5	95	43	78
7	33	25	29	100	48	84
8	32	24	28	100	57	81
9	31	23	27	100	58	79
10	30	23	26.5	100	53	74
11	32	22	27	97	33	69
12	32	20	26	95	50	77
13	33	22	27.5	99	48	79
14	32	23	27.5	100	47	67
15	32	22	27	100	37	60
16	31	19	25	86	25	55
17	33	22	27.5	66	29	48
18	33	22	27.5	71	36	55
19	34	19	26.5	97	42	70
20	33	24	28.5	100	62	85
21	31	23	27	100	62	86
22	30	25	27.5	100	72	91
23	30	24	27	100	34	72
24	30	17	23.5	100	37	68
25	31	19	25	100	34	68
26	31	18	24.5	97	34	66
27	32	18	25	99	39	70
28	32	17	24.5	97	47	72
29	31	17	24	100	36	79
30	30	19	24.5	100	37	79
31	30	19	24.5	97	50	78
mean	31.7	21.7	26.7	97.1	43.3	70.2

STATION : QABRI BAXAR MONTH : November 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	29	18	23.5	100	55	83
2	29	21	25	100	61	86
3	28	21	24.5	100	55	80
4	27	17	22	93	47	60
5	26	12	19	90	48	72
6	25	16	20.5	94	44	76
7	24	14	19	92	42	76
8	22	13	17.5	93	43	76
9	23	17	20	92	39	76
10	22	16	19	91	48	76
11	21	13	17	91	45	75
12	20	10	15	91	45	68
13	21	10	15.5	82	41	65
14	21	9	15	89	30	62
15	22	7	14.5	77	34	60
16	22	6	14	78	26	61
17	22	7	14.5	76	38	56
18	22	8	15	86	29	61
19	22	12	17	89	45	68
20	23	14	18.5	92	46	75
21	23	12	17.5	92	41	72
22	24	10	17	93	29	70
23	25	11	18	92	36	68
24	24	12	18	91	42	72
25	25	11	18	94	61	85
26	25	12	18.5	95	70	86
27	26	12	19	96	64	80
28	27	13	20	96	56	82
29	27	12	19.5	93	55	80
30	27	11	19	98	52	79
31						
mean	24.1	12.7	18.4	91.4	45.2	72.0

STATION : CEEL GAL MONTH : May 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1						
2						
3						
4						
5						
6						
7						
8	38	27	32.5	85	45	72
9	34	27	30.5	86	45	72
10	35	27	31	85	39	68
11	34	26	30	89	50	75
12	35	28	31.5	88	50	74
13	35	26	30.5	90	40	70
14	34	26	30	87	58	77
15	34	26	30	90	47	74
16	34	26	30	87	47	73
17	36	26	31	90	26	68
18	34	26	30	90	54	75
19	35	27	31	90	48	75
20	36	27	31.5	91	37	68
21	38	26	32	88	32	59
22	38	25	31.5	87	33	59
23	37	26	31.5	93	34	64
24	39	25	32	92	3	58
25	37	26	31.5	92	38	65
26	35	25	30	93	46	70
27	37	27	32	93	46	70
28	38	26	32	93	39	66
29	38	27	32.5	95	27	61
30	39	28	33.5	85	23	54
31	39	28	33.5	86	32	59
mean	36.1	26.4	31.2	89.4	39.	67

STATION : CEEL GAL MONTH : June 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	40	29	34.5	86	26	66
2	41	28	34.5	87	29	61
3	44	27	35.5	72	11	40
4	44	32	38	53	15	36
5	44	30	37	51	14	40
6	40	29	34.5	65	38	52
7	38	30	34	71	46	60
8	40	31	35.5	86	19	60
9	40	28	34	72	34	60
10	40	29	34.5	86	30	60
11	41	31	36	90	28	59
12	38	28	34	89	45	69
13	42	28	35	90	24	56
14	41	30	35.5	60	31	45
15	42	29	35.5	76	20	39
16	44	28	36	69	16	42
17	44	30	37	55	18	42
18	44	32	38	59	21	42
19	44	31	37.5	49	20	38
20	44	31	37.5	60	20	40
21	44	30	37	62	17	41
22	43	31	37	56	23	46
23	44	30	37	57	22	41
24	44	33	38	65	19	47
25	43	30	36.5	64	25	44
26	42	30	36	67	30	47
27	44	30	37	61	28	44
28	44	30	37	65	27	46
29	44	30	37	67	22	44
30	44	30	37	57	17	39
31						
mean	42.4	29.9	36.2	67.	24.3	46.3

STATION : GEEL GAL MONTH : July 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	45	31	38	55	22	41
2	44	30	37	70	29	49
3	45	30	37.5	64	22	45
4	44	32	38	63	32	49
5	42	32	37	64	38	52
6	42	32	37	64	36	55
7	43	31	37	65	35	52
8	43	31	37	67	36	51
9	44	32	38	62	32	50
10	42	32	37	61	35	51
11	42	30	36	75	39	53
12	43	30	36.5	84	32	58
13	43	31	37	65	29	51
14	44	31	37.5	54	27	48
15	44	31	37.5	54	29	45
16	45	32	38.5	65	18	37
17	45	33	39	56	17	36
18	46	32	39	58	17	44
19	46	34	40	55	17	40
20	45	32	38.5	54	22	41
21	44	32	38	57	27	44
22	44	33	38.5	62	29	50
23	45	33	39	64	27	47
24	45	33	39	72	28	46
25	42	30	36	88	29	52
26	42	29	35.5	80	36	59
27	42	28	35	87	30	55
28	43	30	36	79	25	52
29	42	31	36.5	72	32	57
30	45	32	38.5	77	30	53
31	46	31	38.5	73	23	50
mean	43.9	31.2	37.5	67.2	30.2	49.0

STATION : CEEL GAL MONTH : August 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	43	31	37	78	30	60
2	44	30	37	83	32	59
3	44	30	37	73	27	58
4	44	32	38	71	29	50
5	44	32	38	81	38	59
6	43	32	37.5	67	39	56
7	43	32	37.5	75	39	58
8	43	33	37.5	91	41	66
9	44	29	36.5	100	26	61
10	43	31	37	66	37	52
11	43	29	36	98	17	53
12	43	32	37.5	77	20	51
13	43	33	38	81	25	55
14	42	29	35.5	93	31	65
15	42	30	36	76	32	60
16	41	30	35.5	77	32	62
17	43	31	37	72	28	55
18	43	31	37	68	31	55
19	43	32	37.5	65	32	51
20	42	31	36.5	66	35	50
21	43	31	37	70	35	59
22	41	31	36	77	40	55
23	43	28	35.5	59	29	49
24	42	32	37	68	32	55
25	41	30	35.5	78	36	58
26	42	31	36.5	76	35	59
27	41	30	35.5	78	36	64
28	42	29	35.5	69	36	55
29	42	31	36.5	80	35	58
30	42	31	36.5	79	36	56
31	42	31	36.5	77	35	56
mean	42.6	30.8	36.7	75.5	33.6	56.n

STATION : ČEEL GAL MONTH : September 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	42	29	35.5	72	36	59
2	42	30	36	71	35	54
3	43	31	37	76	33	57
4	43	31	37	76	34	55
5	42	28	35	66	37	55
6	41	29	35	75	39	61
7	42	29	35.5	79	38	68
8	41	27	34	95	32	64
9	41	30	35.5	75	35	61
10	40	29	34.5	82	40	62
11	41	29	35	82	36	64
12	37	28	32.5	96	61	82
13	36	26	31	99	53	81
14	37	26	31.5	99	40	75
15	38	26	32	75	31	58
16	40	26	33	83	35	64
17	40	28	34	79	36	63
18	40	27	33.5	90	40	74
19	36	27	31.5	100	50	83
20	37	26	31.5	100	48	81
21	35	27	31	99	60	84
22	35	26	30.5	99	61	85
23	35	26	30.5	100	62	84
24	34	27	30.5	100	62	85
25	34	25	29.5	100	64	85
26	33	27	30	95	65	80
27	34	26	30	100		
28						
29						
30						
31						
mean	38.5	28.6	32.9	87.3	44.7	70.2

STATION : CEEL GAL MONTH : October 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1						
2						
3	35	28	31.5	95	56	76
4	39	27	33	97	31	75
5	38	27	32.5	87	43	69
6	34	26	30	98	55	82
7	34	26	30	99	57	81
8	33	25	29	96	59	80
9	33	25	29	96	55	79
10	33	25	29	97	56	77
11	33	25	29	98	50	79
12	33	24	28.5	92	52	75
13	33	24	28.5	92	50	71
14	33	24	28.5	98	54	81
15	34	24	29	98	39	75
16	37	23	30	95	25	63
17	35	22	28.5	89	45	68
18	36	22	29	85	33	67
19	34	21	27.5	93	60	83
20	33	24	28.5	100	61	86
21	31	24	27.5	100	65	86
22	31	26	28.5	98	67	86
23	32	25	28.5	100	40	78
24	33	22	27.5	100	35	72
25	33	22	27.5	95	33	70
26	33	21	27	98	20	67
27	33	21	27	99	35	71
28	32	21	26.5	98	48	79
29	32	22	27	100	36	76
30	32	22	27	95	30	70
31	32	22	27	95	31	74
mean	36.5	23.8	26.8	89.4	42.6	70.8

STATION : BOWN MONTH : May 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1						
2						
3						
4						
5						
6	28	19	23.5	97	31	70
7	30	17	23.5	91	16	56
8	30	18	24	91	23	60
9	29	20	24.5	97	28	72
10	29	19	27	92	38	67
11	29	17	23	98	45	80
12	28	18	23	96	35	72
13	28	18	23	98	27	72
14	28	18	23	99	40	72
15	27	17	22	97	38	67
16	28	16	22	99	28	64
17	29	16	22.5	99	27	52
18	30	18	24	97	32	70
19	30	19	24.5	99	25	69
20	30	19	24.5	88	21	63
21	31	19	25	87	17	49
22	32	19	25.5	81	11	41
23	32	20	26	81	11	49
24	32	20	26	87	6	49
25	33	20	26.5	88	10	54
26	32	21	26.5	88	27	63
27	32	21	26.5	86	28	61
28	31	21	26	86	28	55
29	32	21	26.5	86	29	63
30	32	21	26.5	84	37	65
31	32	21	26.5	86	42	65
mean	30.1	19.0	..	90.7	26.8	62.3

STATION BOWN MONTH : June 1980

Date	Temperature (c°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	32	21	26.5	81	37	64
2	33	21	27	87	28	61
3	34	22	28	73	28	49
4	33	23	28	69	25	51
5	33	21	27	79	25	52
6	33	21	27	84	20	59
7	33	21	27	82	38	64
8	33	21	27	87	35	64
9	34	22	28	80	34	60
10	33	21	27	84	34	60
11	33	21	27	81	29	58
12	33	20	26.5	84	27	56
13	33	21	27	79	24	54
14	34	22	28	79	27	55
15	33	22	27.5	75	31	55
16	33	20	26.5	82	32	59
17	32	22	27	72	33	56
18	32	21	26.5	89	39	64
19	33	21	27	87	27	59
20	33	21	27	79	36	59
21	33	21	27	78	30	54
22	33	21	27	77	30	54
23	32	21	26.5	82	34	57
24	32	20	26	87	35	57
25	31	20	25.5	87	38	63
26	32	20	26	82	39	60
27	32	21	26.5	82	40	61
28	32	21	26.5	80	43	62
29	33	21	26	84	35	59
30	31	21	26	81	35	57
31						
mean	32.8	20.8	26.7	81.1	32.3	56.1

STATION : BOWN MONTH : July 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	32	21	26.5	95	35	56
2	32	20	26	81	39	61
3	32	19	25.5	88	41	64
4	30	21	25.5	83	47	65
5	30	22	26	89	48	69
6	29	20	24.5	97	43	65
7	30	19	24.5	80	37	60
8	30	20	25	73	37	56
9	29	19	24	79	39	60
10	31	19	25	85	31	63
11	29	19	24	98	46	68
12	30	20	25	91	40	65
13	31	21	26	79	34	59
14	32	20	26	76	29	57
15	30	20	25	76	41	61
16	31	20	25.5	69	36	51
17	32	22	27	72	26	52
18	32	21	26.5	66	15	46
19	32	22	27	69	19	44
20	31	20	25.5	70	14	46
21	30	20	25	78	30	54
22	31	20	25.5	75	28	52
23	31	20	25.5	61	26	47
24	32	21	26.5	80	28	54
25	28	19	23.5	81	35	58
26	29	20	24.5	88	33	61
27	29	18	23.5	80	24	52
28	29	19	24	82	24	53
29	29	19	24	82	24	53
30	30	20	25	57	19	38
31	32	22	27	64	18	41
Mean	30.4	20.				

STATION : BOWN MONTH : August 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	32	20	26	89	17	[illegible]
2	32	21	26.5	56	21	46
3	32	21	26.5	62	20	[illegible]
4	31	21	26	82	19	[illegible]
5	31	20	25.5	68	23	51
6	31	20	25.5	82	26	[illegible]
7	29	19	24	75	35	60
8	28	20	24	68	37	55
9	32	20	26	66	19	45
10	31	17	24	93	27	51
11	29	19	24	94	29	51
12	28	18	23	62	29	45
13	29	19	24	69	35	45
14	28	18	23	87	41	65
15	29	18	23.5	82	45	68
16	31	19	25	77	31	57
17	31	20	25.5	67	33	55
18	30	19	24.5	99	37	63
19	29	17	23	86	33	[illegible]
20	29	17	23	75	36	[illegible]
21	30	19	24.5	[illegible]	33	[illegible]
22	30	19	24.5	[illegible]	40	[illegible]
23	32	20	26	[illegible]	32	[illegible]
24	[illegible]	23	27	[illegible]	36	[illegible]
25	30	20	25	[illegible]	40	[illegible]
26	30	20	25	[illegible]	39	[illegible]
27	30	18	24	[illegible]	[illegible]	[illegible]
28	31	19	[illegible]	[illegible]	[illegible]	[illegible]
29	31	20	[illegible]	[illegible]	[illegible]	[illegible]
30	30	20	25	82	38	63
31	30	20	25	[illegible]	41	59
mean	29.3	19.4	24.[illegible]	[illegible]	32.3	57.4

TION : BOWN MONTH : September 1980

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1	29	17	23	100	35	66
2	29	19	24	70	33	54
3	30	20	25	73	32	55
4	31	19	25	84	30	63
5	30	19	24.5	82	35	63
6	30	20	25	80	40	65
7	30	20	25	82	42	66
8	29	17	23	100	37	65
9	29	19	24.5	86	40	66
10	29	19	24.5	96	36	71
11	29	18	23.5	93	31	62
12	30	19	24.5	79	26	60
13	30	19	24.5	88	29	60
14	31	20	25.5	87	25	57
15	30	20	25	94	31	61
16	31	20	25.5	84	29	56
17	30	20	25	92	31	59
18	30	19	24.5	84	22	54
19	30	17	23.5	82	25	59
20	31	18	24.5	75	19	50
21	30	20	25	90	26	58
22	30	20	25	97	27	66
23	30	18	24	95	28	69
24	27	18	22.5	100	31	69
25	27	18	22.5	100	44	75
26	28	18	23	92	34	68
27	29	17	23	95	36	72
28	28	19	23	100	43	78
29	28	20	24	100	44	75
30	29	17	23	95	31	70
31						
mean	29.5	18.9	24.2	89.2	32.4	63.7

STATION : BOWE

MONTH : October

Date	Temperature (C°)			Relative Humidity		
	maximum	minimum	mean	maximum	minimum	mean
1						
2	28			89	41	
3	27	18	22.5	100	40	73
4	28	16	22	98	33	71
5	27	17	22	100	41	74
6	25	16	20.5	100	40	80
7	25	16	20.5	100	35	77
8	24	14	19	97	35	79
9	24	14	19	98	30	76
10	25	14	19.5	98	29	73
11	26	14	20	90	24	60
12	26	14	20	73	31	57
13	26	13	19.5	95	16	66
14	25	12	18.5	96	36	70
15	26	13	19.5	91	25	58
16	26	14	20	81	23	54
17	27	14	20.5	69	22	46
18	27	15	21	65	23	44
19	29	15	22	98	28	61
20	27	17	22	100	36	81
21	25	17	21	100	47	83
22	24	17	20.5	99	45	83
23	23	15	19	95	32	73
24	25	11	18	83	6	49
25	25	13	19	84	25	62
26	26	13	19.5	81	21	49
27	26	13	19.5	78	16	49
28	26	12	19	65	15	28
29	25	11	18	80	14	53
30	24	11	17.5	90	23	58
31	25	12	18.5	85	29	51
		14.2	19.1	89.5	27.7	63.6

INSTANTANEOUS WIND SPEED AT GEDDEEBLE

Date	Maximum velocity (m/s)	Number of hours of wind above 6 m/sec	above 0.5 m/s	Date	Maximum velocity (m/s)	Number of hours of wind above 6 m/sec	above 0.5 m/s
July 30				24	9.0	[illegible]	12
18	13.0	15	24	25	8.5	0	21
19	10.5	14	23	26	6.5	0	9
20	11.0	5	23	27	7.0	0	12
21	11.5	5	22	28	7.5	0	10
22	12.5	9	21	29	8.5	0	9
23	11.0	9	22	30	9.0	2	9
24	11.5	9	22				
25	10.5	12	22	Octo. 30			
26	9.5	14	20	1	8.5	0	21
27	9.5	9	16	2	8.0	0	10
28	11.0	10	23	3	15.5	1	15
29	12.5	9	22	4	8.0	0	11
30	11.5	8	23	5	6.5	0	8
31	11.5	9	21	6	7.0	0	7
Sept. 30				7	5.5	0	7
1	11.0	10	20	8	7.0	0	9
2	12.0	10	24	9	6.5	0	10
3	10.0	8	24	10	8.5	0	8
4	12.0	14	23	11	8.0	0	9
5	10.5	11	21	12	7.5	0	9
6	9.5	3	21	13	6.0	0	10
7	9.5	3	22	14	6.5	0	10
8	10.5	7	23	15	6.0	0	[illegible]
9	11.0	5	[illegible]	16	6.5	0	10
10	10.5	8	[illegible]	17	7.5	0	9
[illegible]	11.0	4	[illegible]	18	8.5	0	12
12	12.0	6	[illegible]	19	9.5	0	11
13	10.5	[illegible]	[illegible]	20	7.0	0	
[illegible]	10.0	4	[illegible]	21	9.5	0	
[illegible]	9.5	[illegible]	[illegible]	22	9.5	0	
[illegible]	10.0	[illegible]	[illegible]	23	6.0	0	
[illegible]	8.0	0	[illegible]	24	8.0	0	
[illegible]	6.0	0	0	25	6.0	0	
[illegible]	6.0	0	[illegible]	26	6.0	0	
[illegible]	11.0	[illegible]	[illegible]	27	6.5	0	
[illegible]	8.5	[illegible]	[illegible]	28	6.5	0	
22	7.5	6	[illegible]	29	7.0	0	
23	8.0	[illegible]	[illegible]	30	8.0	0	
				31	7.0	0	

WIND SPEED

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GACAN LIBMAX

		J	F	M	A	M			A	S	O	N	D
1973	First fortnight		1 978	2 994	2 832				5 222	4 661	2 546	1 807	2 209
	Second fortnight		1 880	2 186	3 175				5 566	3 961	2 472	2 644	1 702
	Total for month (km)		3 858	4 470	6 007				10 888	8 622	5 020	4 460	3 911
1979	First fortnight	3 721	2 401	2 781	2 017	2 527		6 095	4 704	4 222	1 952	2 459	2 244
	Second fortnight	2 463	1 382	3 224	2 950	3 593		8 293	6 713	2 999	2 165	3 857	1 767
	Total for month (km)	6 184	3 883	6 005	4 967	6 120	10 496	14 388	12 417	7 221	4 117	4 316	4 011
1980	First fortnight	3 484	2 605	2 225	1 024	1 635	5 615	6 274	4 756	5 009			
	Second fortnight	1 901	2 604	3 506	5 074	4 020	6 357	7 925	9 082	3 328			
	Total for month (km)	5 385	5 209	5 731	6 098	5 655	11 972	14 199	13 838	8 337			
Mean	km/day	187	152	194	190	190	375	461	399	239	149	147	128
	m/sec	2.2	1.8	2.0	2.2	2.2	4.3	5.3	4.6	2.8	1.7	1.7	1.5

WIND SPEED (kilometers per day)

STATION : GABRI DAKAR

Day	July	August	September	October	November	December	January
1			322	175	212	224	203
2		315	298	175	227	230	256
3		288	245	230	140	281	223
4			203	240	219	259	209
5			382	172	172	227	234
6			237	173	306	248	157
7			253	181	230	165	262
8			225	178	231	296	197
9			247	199	200	196	233
10			302	212	270	249	227
11			222	205	224	151	180
12		5 716	285	236	158	197	246
13			154	184	280	191	154
14			128	205	219	215	282
15			279	226	281	240	228
16			210	223	209	157	280
17			310	241	221	210	280
18			200	257	310	249	230
19			198	253	238	207	281
20			175	278	211	258	27
21			229	237	200	238	3
22	5 197	312	174	190	223	240	
23		389	268	237	227	217	
24		348	236	193	191	182	235
25		299	261	210	189	209	121
26		319	134	112	195	160	121
27		362	125	214	196	204	230
28		254	284	184	250	136	222
29		309	146	210	187	267	220
30		209	150	210	219	208	177
31		239		180		234	
Mean	km/day	345	293	226	210	221	216	234
	m/sec	3.8	3.3	2.6	2.4	2.6	2.5	2.7
Mean (m/sec)				4	2	2.5	2.4	2
Mean (m/sec)				1.1	1.3	1.6	1.6	1.4

WIND SPEED (kilometers per day)

STATION : JEEL GAAL

Day	July	August	September	October	November	December	January
1		326	340	180	130	191	187
2		300	338	178	164	212	245
3		266	241	156	164	205	208
4		305	239	214	187	271	153
5		323	302	223	151	214	141
6		268	233	192	210	172	156
7		242	264	184	221	197	156
8		258	320	184	187	210	163
9		213	207	171	193	197	153
10		189	255	174	202	182	173
11		320	207	172	211	144	156
12		396	256	192	205	120	169
13		256	260	156	188	170	156
14		406	219	189	168	190	152
15		305	113	161	159	173	207
16		221	147	179	182	177	228
17		285	147	194	165	144	318
18	419	352	170	161	163	149	284
19	321	388	198	180	170	176	232
20	282	279	190	183	169	179	254
21	450	256	178	216	151	212	234
22	252	440	186	156	159	157	244
23	320	345	208	176	169	187	202
24	363	357	189	117	180	172	147
25	442	363	172	198	142	168	174
26	422	348	251	159	158	169	154
27	471	305	186	179	152	193	166
28	448	287	176	178	142	182	139
29	346	224	210	192	140	169	154
30	346	352	167	191	195	178	156
31	331	413		172		181	155
Total (km/day)	342	310	224	179	173	177	187
Mean (m/sec)	4.0	3.6	2.6	2.1	2.0	2.1	2.2
Max. (m/sec)	5.4	5.1	3.9	3.1	3.5	3.4	3.4
Min. (m/sec)	2.9	2.2	1.3	1.4	1.6	1.4	1.5

WIND SPEED (kilometers per day)

STATION : BOWN

Day	July	August	September	October	November	December	January
1	262	330	298	168	190	189	199
2	333	333	302	170	177	170	175
3	306	267	307	168	181	169	215
4	306	260	287	151	176	165	188
5	284	262	288	130	171	184	166
6	307	336	255	144	182	174	167
7	304	333	264	175	201	175	168
8	242	466	147	167	195	155	196
9	302	341	200	180	197	157	210
10	291	440	236	154	239	145	237
11	309	310	236	153	205	152	167
12	218	300	149	178	185	158	212
13	295	350	200	175	162	145	146
14	365	352	230	178	211	155	150
15	449	292	192	159	167	157	174
16	356	248	180	195	173	196	216
17	164	231	198	185	182	100	223
18	301	↑	224	178	189	127	252
19	278	901	182	190	168	121	240
20	309	↓	116	203	175	195	231
21	342	269	139	210	184	177	205
22	257	344	↑	193	190	167	242
23	256	322		193	181	162	174
24	258	311		164	197	164	235
25	258	335		159	186	180	179
26	383	335	1517	154	170	174	239
27	348	277		161	158	197	221
28	547	289	↓	163	143	168	195
29	297	238		160	175	193	196
30	278	250		159	146	164	168
31	247	274		188		177	177
mean km/day	306	308	202	174	182	164	190
mean m/sec	3.6	3.6	2.3	2.0	2.1	1.9	2.2
Maxi (m/sec)	5.2	5.4	3.6	2.4	2.8	2.3	2.5
Mini (m/sec)	1.8	2.8	1.3	1.5	1.6	1.2	1.7

WIND SPEED (Kilometers per day)

STATION : RED BEBBLE

Day	June	July	August	September	October		
1							
2					284		
3							
4					146		
5			4 117		119		
6					71		
7		4 519			89		
8					73		
9					76		
10					86		
11					103		
12							
13							
14							
15	6 327						
16							
17							
18		1 825					
19			4 318				
20							
21		307					
22		378					
23		370					
24		494					
25		484					
26		421					
27		955					
28			1 346				
29		1 [illegible]					
30							
31			734				
Total	km/day	301	42				
	m/sec	3.5	5.0				
Max (km/hr)							
Min (km/hr)							