

Phytosociological Research Center

www.globalbioclimatics.org

Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

(Adapted to Synoptical Table 30/08/2017)

SAN SALVADOR AUX (BAHAMAS ISLANDS) Altitude: 3 m.

Latitude: 24°4'N Longitude: 74°32'W
 Temperature observation period.: 1984-1994 (11)
 Rainfall observation period....: 1984-1994 (11)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPi
Jan.	22.50	25.00	20.00	28.33	13.89	50.3	71.82
Feb.	22.78	25.56	20.00	29.44	14.44	25.4	71.68
Mar.	23.34	26.11	20.56	30.00	13.89	28.7	90.11
Apr.	24.45	27.22	21.67	30.56	15.56	58.9	108.62
May.	25.56	28.33	22.78	31.11	17.22	111.8	137.07
Jun.	27.22	30.00	24.44	32.22	20.00	154.7	161.04
Jul.	28.06	31.11	25.00	33.33	20.00	60.5	171.67
Aug.	28.62	31.67	25.56	33.89	22.22	137.2	170.77
Sep.	28.06	31.11	25.00	32.78	21.11	135.6	150.95
Oct.	26.67	29.44	23.89	32.78	20.00	225.3	135.49
Nov.	25.00	27.78	22.22	31.11	16.11	73.4	100.58
Dec.	23.61	26.11	21.11	30.56	14.44	90.4	83.70
Year	25.49	28.29	22.69	31.34	17.41	1152	1453.5

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	705
Compensated thermicity index.....(Itc):	686
Simple continentality index.....(Ic):	6.1
Diurnality index.....(Id):	6.1
Annual ombrothermic index.....(Io):	3.77
Monthly dry ombrothermic index.....(Iod1):	1.12
Bimonthly dry ombrothermic index.....(Iod2):	1.17
Three monthly dry ombrothermic index.....(Iod3):	1.52
Four monthly dry ombrothermic index.....(Iod4):	2.11
Annual ombro-evaporation index.....(Ioe):	2.52
Annual positive temperature.....(Tp):	3059
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	686
Positive precipitation.....(Pp):	1152

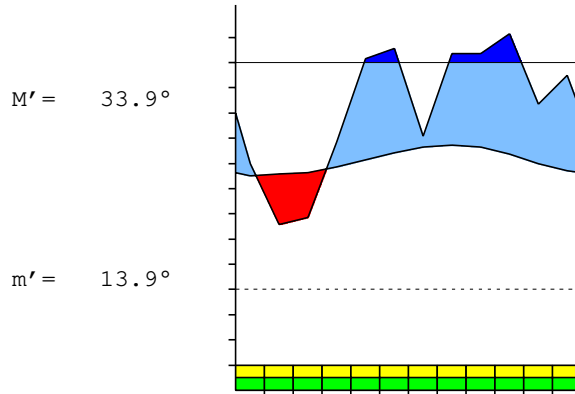
N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	5	5	2	0	0

Latitudinal Belt...: Subtropical
 Continentality.....: Hyperoceanic - Low Euhyperoceanic
 Bioclimate(Variant): TROPICAL PLUVISEASONAL (MESOPHYTIC)
 Bioclimatic Belt...: UPPER INFRATROPICAL LOW SUBHUMID

SAN SALVADOR AUX (BAHAMAS ISLANDS)

3 m

P= 1152 24° 4'N 74° 32'W 11/11 y.
 T= 25.5° Ic= 6.1 Tp= 3059 Tn= 0
 m= 20.0° M= 25.0° Itc= 686 Io= 3.8



TROPICAL PLUVISEASONAL (MESOPHYTIC)
 UPPER INFRATROPICAL LOW SUBHUMID

WATER INDEX CARD

SAN SALVADOR AUX (BAHAMAS ISLANDS)

Altitude: 3 m.

Latitude: 24° 4'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	22.5	72	50	-22	48	72	0	0	0	-0.2
Feb.	22.8	72	25	-46	2	72	0	0	0	-0.6
Mar.	23.3	90	29	-2	0	30	60	0	0	-0.6
Apr.	24.5	109	59	0	0	59	50	0	0	-0.4
May.	25.6	137	112	0	0	112	25	0	0	-0.1
Jun.	27.2	161	155	0	0	155	6	0	0	0.0
Jul.	28.1	172	61	0	0	61	111	0	0	-0.6
Aug.	28.6	171	137	0	0	137	34	0	0	-0.1
Sep.	28.1	151	136	0	0	136	15	0	0	-0.1
Oct.	26.7	135	225	90	90	135	0	0	0	0.6
Nov.	25.0	101	73	-27	63	101	0	0	0	-0.2
Dec.	23.6	84	90	7	69	84	0	0	0	0.0
Year	25.5	1453	1152	*	*	1152	301	0	0	*

R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

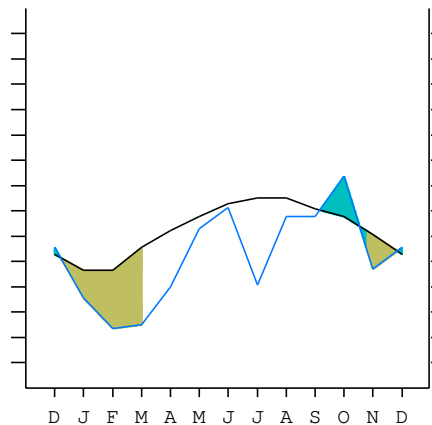
SAN SALVADOR AUX (BAHAMAS ISLANDS)

24°4'N 74°32'W

3 m 11/11 y.

T= 25.5 Ic= 6.1 TROPICAL PLUVISEASONAL (MESOPHYTIC)
 m= 20.0 Tp= 3059 UPPER INFRATROPICAL
 M= 25.0 Tn= 0 LOW SUBHUMID
 M' = 33.9 Itc= 686
 m' = 13.9 Io= 3.8
 P= 1152 mm ———
 PE= 1453 mm ———

Imbibing	25 Nov.
Saturation	24 Oct.
Reserve Use	1 Mar.
Deficit	



SAN SALVADOR AUX (BAHAMAS ISLANDS)

Latitude: 24°4'N Longitude: 74°32'W Altitude: 3 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A2b]
 + Type: A. Hyperoceanic
 + Subtype: 2. Euhyperoceanic
 + Variant: b. Low
 Thermic types [A3.A1]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 3. Subtropical
 + Thermic type: A. Warm
 + Thermic subtype: 1. Torrid
 Bioclimatic types [A4.1a.6b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant ..:
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Trde.Itr.Shu

SAN SALVADOR AUX (BAHAMAS ISLANDS)

Latitude: 24°4'N Longitude: 74°32'W Altitude: 3 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 825
 Coldest semester of the year.....(Psw): 327
 Warmest four months period of the year.....(Pcm1): 488
 Following warmest four months period.....(Pcm2): 439
 Positive precipitation dryest 3 months.....(Ppd): 104
 Positive precipitation dryest 2 months.....(Ppd2): 54
 Positive precipitation dryest 1 month.....(Ppd1): 25
 Positive precipitation warmest 3 months.....(Pps): 333
 Positive precipitation warmest 2 months.....(Pps2): 198
 Positive precipitation warmest 1 month.....(Pps1): 137
 Positive precipitation coldest 3 months.....(Ppw): 104
 Positive precipitation coldest 2 months.....(Ppw2): 76
 Positive precipitation coldest 1 month.....(Ppw1): 50

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	166	199	352	434

Seasonal rainfall rhythms: F > S > P > W

SAN SALVADOR AUX (BAHAMAS ISLANDS)

Latitude: 24°4'N Longitude: 74°32'W Altitude: 3 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.6
 Average coldest month [T].....(Tmin): 22.5
 Maximum temp. warmest month [M].....(Tmmax): 31.7
 Minimum temp. coldest month [m].....(Tmmin): 20.0
 Absolute Max.temp. warmest month [M'].....(Tamax): 33.9
 Absolute Min.temp. coldest month [m'].....(Tamin): 13.9
 First warmest contrasted month [M].....(Tcmax): 31.1 (7)
 First coldest contrasted month [m].....(Tcmin): 25.0 (7)
 Dry station temperature.....(Td): 686
 Positive temperature dryest 3 months.....(Tpd): 686
 Positive temperature dryest 2 months.....(Tpd2): 461
 Positive temperature dryest 1 month.....(Tpd1): 228
 Positive temperature warmest 3 months.....(Tps): 847
 Positive temperature warmest 2 months.....(Tps2): 567
 Positive temperature warmest 1 month.....(Tps1): 286
 Positive temperature coldest 3 months.....(Tpw): 686
 Positive temperature coldest 2 months.....(Tpw2): 453
 Positive temperature coldest 1 month.....(Tpw1): 225

SAN SALVADOR AUX (BAHAMAS ISLANDS)

Latitude: 24°4'N Longitude: 74°32'W Altitude: 3 m

SEASONAL PARAMETERS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Warmest semester...(Sms)					o	o	o	o	o	o		
Dryest semester....(Smd)	o	o	o	o							o	o
Warmest 4 months...(Cm1)						o	o	o	o			
Dryest 4 months....(Cmd)	o	o	o	o								
Vegetation Activity(Pav)	o	o	o	o	o	o	o	o	o	o	o	o
Ultragelid...[M' <=0] (Pf)												
Hypergelid...[M <=0] (Pf)												
Gelid.....[T <=0] (Pf)												
Subgelid.....[m <=0] (Pf)												
Pregelid.....[m' <=0] (Pf)												
Agelid.....[m' > 0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o
HiperAgelid..[all>0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o

SAN SALVADOR AUX (BAHAMAS ISLANDS)

Latitude: 24°4'N Longitude: 74°32'W Altitude: 3 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.26
 Mediterranean index of July.[PE/P].....(Im1): 2.84
 Mediterranean index of July & August.....(Im2): 1.73
 Mediterranean index of June, July & August....(Im3): 1.43

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	904	503	254	287	589	1118	1547	605	1372	1356	2253	734
Tp	236	225	228	233	245	256	272	281	286	281	267	250
Io (Iom)	3.83	2.24	1.12	1.23	2.41	4.37	5.68	2.16	4.79	4.83	8.45	2.94
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	1661 / 689			1994 / 734			3524 / 839			4343 / 797		
Io (Iot)	2.411			2.718			4.200			5.447		
Semesters	December-May						June-November					
Pp(x10)/Tp	3655 / 1422						7867 / 1636					
Io (Iosm)	2.570						4.808					

SAN SALVADOR AUX (BAHAMAS ISLANDS)

Latitude: 24°4'N Longitude: 74°32'W Altitude: 3 m

Aridity Value Index (AVI)

[10xPP/TP=IO]: 11522/3059=3.77 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	904	503	254	287	589	1118	1547	605	1372	1356	2253	734
Tp [T*10]	236	225	228	233	245	256	272	281	286	281	267	250
Iom [Pp/Tp]	383	224	112	123	241	437	568	216	479	483	845	294
Avm [200-Iom]	***	***	88	77	***	***	***	***	***	***	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	1661 / 689			1994 / 734			3524 / 839			4343 / 797		
Iot [Pp/Tp]	241			272			420			545		
Avs E[Avm<200]	***			***			***			***		
Strong lower semiarid [1]							Weak lower semiarid [1]					

SAN SALVADOR AUX (BAHAMAS ISLANDS)

Latitude: 24°4'N Longitude: 74°32'W Altitude: 3 m

BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	6.12
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		5.11
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		4.57
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.68
+ Oceanic (0.6<CI<1.1)		
Rainfall Index of Lang (1925) [R=P/T]		45.20
+ Semiarid (60>R>40)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		32.47
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		191.08
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		2.21
+ Semiarid (3>DR>2)		
Aridity Index of UNEP [I=P/PE]		0.79
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		44.05
+ Very low (K<60)		

SAN SALVADOR AUX (BAHAMAS ISLANDS)

Latitude: 24°4'N Longitude: 74°32'W Altitude: 3 m

BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 1. Megathermic

Thornthwaite (1948)													
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
P-E ratio	0.18	0.08	0.10	0.21	0.41	0.57	0.20	0.48	0.48	0.88	0.26	0.34	
T-E ratio	10.13	10.25	10.50	11.00	11.50	12.25	12.63	12.88	12.63	12.00	11.25	10.62	
Precipitation-effectiveness:	41.96					Temperature-efficiency							137.64
Moisture Index [MI=100*(P-PE)/PE]	-20.73												
+ C1.Subhumid dry (-33.3<MI<0)													
Index of dryness [DI=100*d/PE]	20.72												
+ Moderate deficit (16.7<DI<33.3)													
Index of humidity [HI=100*s/PE]	0.00												
+ No surplus (0<HI<10)													
Potential Evapotranspiration PE	1453.49												
+ Megathermic (PE>1440)													

