

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

DEST. NAVAL MELCHIOR (ANTARCTICA TERR.) Altitude: 8 m.

Latitude: 64°18'S Longitude: 63°0'W
Temperature observation period.: 1951-1961 (11)
Rainfall observation period....: 1951-1961 (11)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	0.96	2.60	0.00	0.00	0.00	41.6	221.14
Feb.	0.57	3.75	-2.75	0.00	0.00	105.2	130.42
Mar.	-0.72	2.64	-4.19	0.00	0.00	114.8	0.00
Apr.	-2.52	3.83	-8.53	0.00	0.00	105.4	0.00
May.	-4.85	6.80	-16.60	0.00	0.00	91.6	0.00
Jun.	-7.50	1.35	-15.55	0.00	0.00	107.9	0.00
Jul.	-9.28	-1.45	-15.75	0.00	0.00	90.2	0.00
Aug.	-8.15	6.83	-23.73	0.00	0.00	93.8	0.00
Sep.	-6.21	6.28	-17.77	0.00	0.00	121.9	0.00
Oct.	-3.73	3.20	-9.80	0.00	0.00	105.2	0.00
Nov.	-1.38	2.23	-4.93	0.00	0.00	78.7	0.00
Dec.	0.35	2.73	-1.83	0.00	0.00	50.3	142.96
Year	-3.54	3.40	-10.12	0.00	0.00	1107	494.52

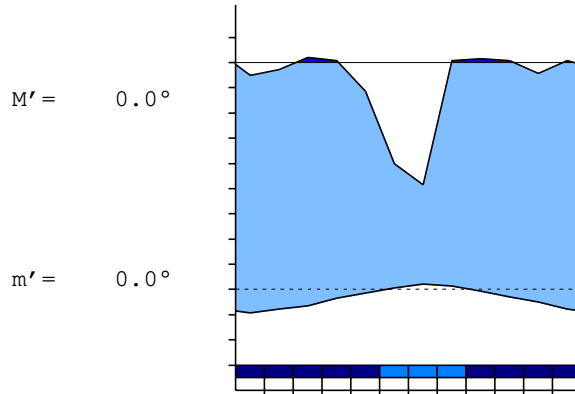
BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	-207
Compensated thermicity index.....(Itc):	-207
Simple continentality index.....(Ic):	10.2
Diurnality index.....(Id):	30.6
Annual ombrothermic index.....(Io):	104.85
Monthly estival ombrothermic index.....(Ios1):	43.30
Bimonthly estival ombrothermic index.....(Ios2):	95.94
Three monthly estival ombrothermic index.....(Ios3):	104.85
Four monthly estival ombrothermic index.....(Ios4):	551.64
Annual ombro-evaporation index.....(Ioe):	0.81
Annual positive temperature.....(Tp):	19
Annual negative temperature.....(Tn):	443
Estival temperature.....(Ts):	19
Positive precipitation.....(Pp):	197

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	3	0	0	0	9

Latitudinal Belt...: High subtemperate
Continentality.....: Hyperoceanic - Low Subhyperoceanic
Bioclimate(Variant): Polar Suprapolar (Hyperoceanic)
Bioclimatic Belt...: Upper Suprapolar Super-Snowy

DEST. NAVAL MELCHIOR (ANTARCTICA TERR.) 8 m
 P= 1107 64° 18'S 63° 0'W 11/11 y.
 T= -3.5° Ic= 10.2 Tp= 19 Tn= 443
 m= -15.8° M= -1.5° Itc= -207 Io= 104.9



Polar Suprapolar (Hyperoceanic)
 Upper Suprapolar Super-Snowy

WATER INDEX CARD DEST. NAVAL MELCHIOR (ANTARCTICA TERR.)
 Altitude: 8 m. Latitude: 64° 18'S

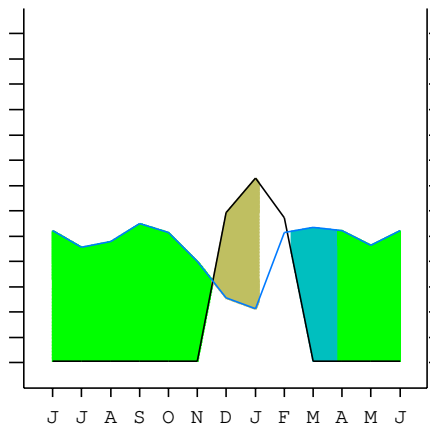
(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	-9.3	0	90	0	100	0	0	90	91	*
Aug.	-8.1	0	94	0	100	0	0	94	92	*
Sep.	-6.2	0	122	0	100	0	0	122	107	*
Oct.	-3.7	0	105	0	100	0	0	105	106	*
Nov.	-1.4	0	79	0	100	0	0	79	92	*
Dec.	0.3	143	50	-93	7	143	0	0	46	-0.6
Jan.	1.0	221	42	-7	0	49	172	0	23	-0.8
Feb.	0.6	130	105	0	0	105	25	0	12	-0.1
Mar.	-0.7	0	115	100	100	0	0	15	13	*
Apr.	-2.5	0	105	0	100	0	0	105	59	*
May.	-4.8	0	92	0	100	0	0	92	75	*
Jun.	-7.5	0	108	0	100	0	0	108	92	*
Year	-3.5	495	1107	*	*	297	197	809	809	*

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

DEST. NAVAL MELCHIOR (ANTARCTICA TERR.)
 64°18'S 63°0'W 8 m 11/11 y.

T= -3.5 Ic= 10.2 Polar Suprapolar (Hyperoceanic)
 m= -15.8 Tp= 19 Upper Suprapolar
 M= -1.5 Tn= 443 Super-Snowy
 M' = 0.0 Itc= -207
 m' = 0.0 Io= 104.9
 P= 1107 mm ———
 PE= 495 mm ———

Imbibing	6 Feb.
Saturation	27 Mar.
Reserve Use	14 Nov.
Deficit	2 Jan.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A3b]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: b. Low

Thermic types [C2.D11]
 + Latitudinal zone: C. Cold
 + Latitudinal belt: 2. High subtemperate
 + Thermic type: D. Gelid
 + Thermic subtype: 11.Ultrageid

Bioclimatic types [E2.4.6]
 + Macrobioclimate: E. Polar
 + Bioclimate: 2. Suprapolar
 + Bioclimatic variant .:
 + Thermic type.....: 4. Upper Suprapolar
 + Thermic subtype.....:
 + Ombrothermic type ...: 6. Super-Snowy
 + Ombrothermic subtype :
 Bioclimatic Classification

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 496
 Coldest semester of the year.....(Psw): 611
 Warmest four months period of the year.....(Pcm1): 312
 Following warmest four months period.....(Pcm2): 395
 Positive precipitation dryest 3 months.....(Ppd): 92
 Positive precipitation dryest 2 months.....(Ppd2): 92
 Positive precipitation dryest 1 month.....(Ppd1): 42
 Positive precipitation warmest 3 months.....(Pps): 197
 Positive precipitation warmest 2 months.....(Pps2): 147
 Positive precipitation warmest 1 month.....(Pps1): 42
 Positive precipitation coldest 3 months.....(Ppw): 0
 Positive precipitation coldest 2 months.....(Ppw2): 0
 Positive precipitation coldest 1 month.....(Ppw1): 0

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	291	305	197	311

Seasonal rainfall rhythms: F > P > W > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 1.0
 Average coldest month [T].....(Tmin): -9.3
 Maximum temp. warmest month [M].....(Tmmax): 6.8
 Minimum temp. coldest month [m].....(Tmmin): -23.7
 Absolute Max.temp. warmest month [M'].....(Tamax): 0.0
 Absolute Min.temp. coldest month [m'].....(Tamin): 0.0
 First warmest contrasted month [M].....(Tcmax): 6.8 (8)
 First coldest contrasted month [m].....(Tcmin): -23.7 (8)
 Estival temperature.....(Ts): 19
 Positive temperature dryest 3 months.....(Tpd): 13
 Positive temperature dryest 2 months.....(Tpd2): 13
 Positive temperature dryest 1 month.....(Tpd1): 10
 Positive temperature warmest 3 months.....(Tps): 19
 Positive temperature warmest 2 months.....(Tps2): 15
 Positive temperature warmest 1 month.....(Tps1): 10
 Positive temperature coldest 3 months.....(Tpw): 0
 Positive temperature coldest 2 months.....(Tpw2): 0
 Positive temperature coldest 1 month.....(Tpw1): 0

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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)												
Ultragelid...[M' <=0] (Pf)												
Hypergelid...[M <=0] (Pf)							o					
Gelid.....[T <=0] (Pf)			o	o	o	o	o	o	o	o	o	
Subgelid.....[m <=0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o
Pregelid.....[m' <=0] (Pf)												
Agelid.....[m' > 0] (Pf)												
HiperAgelid..[all>0] (Pf)												

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.45
 Mediterranean index of January.....(Im1): 5.32
 Mediterranean index of January & February.....(Im2): 2.39
 Mediterranean index of December to February...(Im3): 2.51

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	503	416	1052	*	*	*	*	*	*	*	*	*
Tp	4	10	6	*	*	*	*	*	*	*	*	*
Io (Iom)	144	43.3	185	*	*	*	*	*	*	*	*	*
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	1971 / 19			*/*			*/*			*/*		
Io (Iot)	104.9			*			*			*		
Semesters	December-May						June-November					
Pp(x10)/Tp	*/*						*/*					
Io (Iosm)	*						*					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 1971/19=104.85 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	503	416	1052	*	*	*	*	*	*	*	*	*
Tp [T*10]	4	10	6	*	*	*	*	*	*	*	*	*
Iom [Pp/Tp]	\$\$	\$\$	\$\$!!	!!	!!	!!	!!	!!	!!	!!	!!
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	1971 / 19			* / *			* / *			* / *		
Iot [Pp/Tp]	\$\$			**			**			**		
Avs E[Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 10.24
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: -1.08
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 4.08
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.46
 + Hyperoceanic (0<CI<0.6)
 Rainfall Index of Lang (1925) [R=P/T]:-312.75
 +
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 171.26
 + Perhumid (Ia>60)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]:-214.26
 +
 I of Dantin & Revenga (1940) [DR=100*T/P]: -0.32
 +
 Aridity Index of UNEP [I=P/PE]: 2.24
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 13.43
 + Very low (K<60)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: B. Cold and temperate cold
 + Region: 11. Psicroaxeric (Axeric cold)
 + Thermic type: 11. Ultragelid

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.30	0.85	1.00	0.97	0.83	1.00	0.82	0.85	1.14	0.97	0.68	0.38
T-E ratio	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
Precipitation-effectiveness: 97.87						Temperature-efficiency: 0.85						
Moisture Index [MI=100*(P-PE)/PE]: 123.77 + A.Extremely humid (MI>100)												
Index of dryness [DI=100*d/PE]: 39.90 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]: 163.68 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 494.52 + Second microthermic (427<PE<570)												

