LITTLE AMERICA (ANTARCTICA TERR.)
Altitude: 42 m.
Latitude: 78°11’S  Longitude: 162°12’W
Temperature observation period.: 1990−1994 (5)
Rainfall observation period....: 1991−1994 (4)

<table>
<thead>
<tr>
<th>(°C)</th>
<th>Ti</th>
<th>Mi</th>
<th>mi</th>
<th>M'i</th>
<th>m'i</th>
<th>Pi</th>
<th>EPi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan.</td>
<td>−6.94</td>
<td>−4.44</td>
<td>−9.44</td>
<td>5.56</td>
<td>−21.11</td>
<td>10.4</td>
<td>0.00</td>
</tr>
<tr>
<td>Feb.</td>
<td>−11.39</td>
<td>−7.78</td>
<td>−15.00</td>
<td>0.00</td>
<td>−37.78</td>
<td>33.8</td>
<td>0.00</td>
</tr>
<tr>
<td>Mar.</td>
<td>−22.78</td>
<td>−18.89</td>
<td>−26.67</td>
<td>0.00</td>
<td>−50.00</td>
<td>19.8</td>
<td>0.00</td>
</tr>
<tr>
<td>Apr.</td>
<td>−28.34</td>
<td>−23.89</td>
<td>−32.78</td>
<td>−1.11</td>
<td>−52.78</td>
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<td>0.00</td>
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<td>May.</td>
<td>−29.44</td>
<td>−24.44</td>
<td>−34.44</td>
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<td>−52.78</td>
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<td>0.00</td>
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<tr>
<td>Jun.</td>
<td>−29.17</td>
<td>−25.00</td>
<td>−33.33</td>
<td>−3.89</td>
<td>−51.11</td>
<td>21.3</td>
<td>0.00</td>
</tr>
<tr>
<td>Jul.</td>
<td>−34.45</td>
<td>−30.00</td>
<td>−38.89</td>
<td>−5.00</td>
<td>−56.67</td>
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<tr>
<td>Aug.</td>
<td>−36.95</td>
<td>−32.22</td>
<td>−41.67</td>
<td>−5.56</td>
<td>−61.11</td>
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<td>−58.33</td>
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<td>−20.56</td>
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<td>−47.22</td>
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<td>Nov.</td>
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<td>−1.11</td>
<td>−36.67</td>
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<td>0.00</td>
</tr>
<tr>
<td>Dec.</td>
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<td>−2.78</td>
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<td>−18.89</td>
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</tr>
<tr>
<td>Year</td>
<td>−23.15</td>
<td>−19.12</td>
<td>−27.18</td>
<td>−1.48</td>
<td>−44.86</td>
<td>264</td>
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</table>

BIOCLIMATIC INDICES AND DIAGNOSIS

- Thermicity index.........................(It): −970
- Compensated thermicity index............(Itc): −766
- Simple continentality index...............(Ic): 31.4
- Diurnality index.........................(Id): 10.0
- Annual ombrothermic index................(Io): No
- Bimonthly estival ombrothermic index.....(Ios1): No
- Annual ombro−evaporation index..........(Ioe): No
- Annual positive temperature..............(Tp): 0
- Annual negative temperature..............(Tn): 2778
- Estival temperature......................(Ts): 0
- Positive precipitation....................(Pp): 0

<table>
<thead>
<tr>
<th>N. of Months</th>
<th>P&gt;4T</th>
<th>P:2T−4T</th>
<th>PT−2T</th>
<th>P&lt;T</th>
<th>T&lt;0</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
</tbody>
</table>

Latitudinal Belt....: High polar
Continentalty.....: Continental - Low Eucontinental
Bioclimatic Belt...: Polar Hypogelid
Bioclimatic Belt....: Upper Hypogelid Low-Snowy
LITTLE AMERICA (ANTARCTICA TERR.)

\[ P = 264 \text{ mm} \quad 78^\circ 11'S \quad 162^\circ 12'W \quad 5/4 \text{ y.} \]

\[ T = -23.2^\circ \quad Ic = 31.4 \quad Tp = 0 \quad Tn = 2778 \]

\[ m = -41.7^\circ \quad M = -32.2^\circ \quad Itc = -766 \quad Io = 9999.9 \]

\[ M' = 5.6^\circ \]

\[ m' = -61.1^\circ \]

Polar Hypogelid
Upper Hypogelid Low-Snowy

**WATER INDEX CARD**

**LITTLE AMERICA (ANTARCTICA TERR.)**

Altitude: 42 m. Latitude: 78° 11’S

<table>
<thead>
<tr>
<th>(C/mm)</th>
<th>T</th>
<th>PE</th>
<th>P</th>
<th>VR</th>
<th>R</th>
<th>RE</th>
<th>DF</th>
<th>SP</th>
<th>DR</th>
<th>HC</th>
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<tbody>
<tr>
<td>Jul.</td>
<td>-34.5</td>
<td>0</td>
<td>17</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>20</td>
<td>*</td>
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<tr>
<td>Aug.</td>
<td>-37.0</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>16</td>
<td>*</td>
</tr>
<tr>
<td>Sep.</td>
<td>-33.1</td>
<td>0</td>
<td>23</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>23</td>
<td>20</td>
<td>*</td>
</tr>
<tr>
<td>Oct.</td>
<td>-25.3</td>
<td>0</td>
<td>21</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>21</td>
<td>20</td>
<td>*</td>
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<tr>
<td>Nov.</td>
<td>-14.4</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>16</td>
<td>*</td>
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<tr>
<td>Dec.</td>
<td>-5.6</td>
<td>0</td>
<td>24</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>20</td>
<td>*</td>
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<tr>
<td>Jan.</td>
<td>-6.9</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>15</td>
<td>*</td>
</tr>
<tr>
<td>Feb.</td>
<td>-11.4</td>
<td>0</td>
<td>34</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>34</td>
<td>25</td>
<td>*</td>
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<tr>
<td>Mar.</td>
<td>-22.8</td>
<td>0</td>
<td>41</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>41</td>
<td>33</td>
<td>*</td>
</tr>
<tr>
<td>Apr.</td>
<td>-28.3</td>
<td>0</td>
<td>20</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>20</td>
<td>26</td>
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</tr>
<tr>
<td>May.</td>
<td>-29.4</td>
<td>0</td>
<td>27</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>27</td>
<td>27</td>
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<tr>
<td>Jun.</td>
<td>-29.2</td>
<td>0</td>
<td>21</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Year</td>
<td>-23.2</td>
<td>0</td>
<td>264</td>
<td>*</td>
<td>*</td>
<td>0</td>
<td>0</td>
<td>264</td>
<td>264</td>
<td>*</td>
</tr>
</tbody>
</table>

\( R = \text{Reserve} \quad VR = \text{Variation of the reserve} \quad RE = \text{Real evapotranspiration} \quad DR = \text{Drainage} \quad HC = \text{Humidity coefficient} \quad DF = \text{Deficit} \quad SP = \text{Superavit} \)

**LITTLE AMERICA (ANTARCTICA TERR.)**

78°11’S 162°12’W 42 m 5/4 y.

\[ T = -23.2^\circ \quad Ic = 31.4 \quad \text{Polar Hypogelid} \]

\[ m = -41.7^\circ \quad M = -32.2^\circ \quad \text{Upper Hypogelid} \]

\[ M' = 5.6^\circ \quad \text{Low-Snowy} \]

\[ m' = -61.1^\circ \quad \text{Io=9999.9} \]

\[ P = 264 \text{ mm} \quad \text{PE = 0 mm} \]

All over the year, there is no hydric deficit
LITTLE AMERICA (ANTARCTICA TERR.)
Latitude: 78°11'S   Longitude: 162°12'W   Altitude: 42 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index  [C3a]
+ Type ................: C. Continental
+ Subtype .............: 3. Eucontinental
+ Variant .............: a. Low

Thermic types  [C2.D10]
+ Latitudinal zone ....: C. Cold
+ Latitudinal belt ....: 2. High polar
+ Thermic type ........: D. Gelid
+ Thermic subtype .....: 10. Hipergelid

Bioclimatic types  [E3.5.3]
+ Macrobioclimate ......: E. Polar
+ Bioclimate ...........: 3. Hypogelid
+ Bioclimatic variant .:
+ Thermic type..........: 5. Upper Hypogelid
+ Thermic subtype......:
+ Ombrothermic type ...: 3. Low−Snowy
+ Ombrothermic subtype:

Bioclimatic Classification  

LITTLE AMERICA (ANTARCTICA TERR.)
Latitude: 78°11'S   Longitude: 162°12'W   Altitude: 42 m

PRECIPITATION PARAMETERS

<table>
<thead>
<tr>
<th>Season</th>
<th>Winter Tr1-W</th>
<th>Spring Tr2-S</th>
<th>Summer Tr3-S</th>
<th>Autumn Tr4-F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainfall</td>
<td>50</td>
<td>56</td>
<td>68</td>
<td>88</td>
</tr>
</tbody>
</table>

Seasonal rainfall rhythms:  F > S > P > W

LITTLE AMERICA (ANTARCTICA TERR.)
Latitude: 78°11'S   Longitude: 162°12'W   Altitude: 42 m

TEMPERATURE PARAMETERS

<table>
<thead>
<tr>
<th>Season</th>
<th>Average warmest month [T] (Tmax): -5.6</th>
<th>Average coldest month [T] (Tmin): -37.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maximum temp. warmest month [M] (Tmmax): -2.8</td>
<td>Minimum temp. coldest month [m] (Tmmin): -41.7</td>
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<tr>
<td></td>
<td>Absolute Max.temp. warmest month [M'] (Tamax): 5.6</td>
<td>Absolute Min.temp. coldest month [m'] (Tamin): -61.1</td>
</tr>
<tr>
<td>Estival temperature</td>
<td>(Ts): 0</td>
<td>(Ts): 0</td>
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<tr>
<td></td>
<td>Positive temperature dryest 3 months (Tpd): 0</td>
<td>Positive temperature dryest 2 months (Tpd2): 0</td>
</tr>
<tr>
<td></td>
<td>Positive temperature dryest 1 month (Tpd1): 0</td>
<td>Positive temperature dryest 1 month (Tpd1): 0</td>
</tr>
<tr>
<td></td>
<td>Positive temperature warmest 3 months (Tps): 0</td>
<td>Positive temperature warmest 2 months (Tps2): 0</td>
</tr>
<tr>
<td></td>
<td>Positive temperature warmest 1 month (Tps1): 0</td>
<td>Positive temperature warmest 1 month (Tps1): 0</td>
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<td></td>
<td>Positive temperature coldest 3 months (Tpw): 0</td>
<td>Positive temperature coldest 2 months (Tpw2): 0</td>
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<tr>
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<td>Positive temperature coldest 1 month (Tpwl): 0</td>
<td>Positive temperature coldest 1 month (Tpwl): 0</td>
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**SEASONAL PARAMETERS**

<table>
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<tr>
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<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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<tbody>
<tr>
<td>Warmest semester... (Sms)</td>
<td>o</td>
<td>o</td>
<td></td>
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<td>o</td>
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<tr>
<td>Dryest semester...  (Smd)</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
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<td>o</td>
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<tr>
<td>Warmest 4 months... (Cm1)</td>
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<tr>
<td>Dryest 4 months...  (Cmd)</td>
<td>o</td>
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<tr>
<td>Vegetation Activity (Pav)</td>
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<tr>
<td>Ultragelid... [M’&lt;=0] (Pf)</td>
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<td></td>
<td></td>
<td></td>
<td>o</td>
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<tr>
<td>Hypergelid... [M &lt;=0] (Pf)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>o</td>
<td></td>
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<tr>
<td>Gelid....... [T &lt;=0] (Pf)</td>
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<tr>
<td>Subgelid..... [m &lt;= 0] (Pf)</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>o</td>
<td></td>
<td></td>
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<tr>
<td>Presgelid..... [m’&lt;=0] (Pf)</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>o</td>
<td></td>
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<td></td>
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<tr>
<td>Agelid....... [m’&gt; 0] (Pf)</td>
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<tr>
<td>HiperAgelid.. [all&gt;0] (Pf)</td>
<td></td>
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</tbody>
</table>

**OMBROTHERMIC PARAMETERS**

- Annual aridity index [(PE/P)]............... (Iar): 0.00
- Mediterranean index of January................ (Im1): 0.00
- Mediterranean index of January & February..... (Im2): 0.00
- Mediterranean index of December to February... (Im3): 0.00

<table>
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<td>Pp(x10)</td>
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</tr>
<tr>
<td>Tp</td>
<td>*</td>
<td>*</td>
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<tr>
<td>Io (Iom)</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<td>*</td>
<td>*</td>
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</tr>
</tbody>
</table>

**Aridity Value Index (AVI)**

- [10xPP/TP=10]: 0/0=9999.90 There is No Yearly Aridity
LITTLE AMERICA (ANTARCTICA TERR.)
Latitude: 78°11’S   Longitude: 162°12’W   Altitude: 42 m

BIOCLIMATIC INDICES I
CI of Supan (1884) [Tmax−Tmin] ...........................(Sp): 31.39
CI of Gorezinski (1920) [1.7*Sp/sin(Lat−20.4)] ............: 34.12
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)−14] .............: 39.39
+ Oceanic (20<CI<40)
CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....................: 1.16
+ Subcontinental (1.1<CI<1.7)
Rainfall Index of Lang (1925) [R=P/T] ......................: −11.39
+ Aridity Index of Martonne (1926) [Ia=P/(T+10)] ...........: −20.05
+ I of Emberger (1930) [Q=100*P/(Tmmax^2−Tmmin^2)] .......: −15.25
+ I of Dantin & Revenga (1940) [DR=100*T/P] ...............: −8.78
+ Aridity Index of UNEP [I=P/PE] ............................: 0.00
Potencial Erosion I of Fournier (1960) [K=Pi²/P] ..........: 6.50
+ Very low (K<60)

LITTLE AMERICA (ANTARCTICA TERR.)
Latitude: 78°11’S   Longitude: 162°12’W   Altitude: 42 m

BIOCLIMATIC INDICES II
Bioclimatic classification of Gaussen & Bagnouls (1957)
+ Climate ......: C. Gelid
+ Region ......: 12. Criomeric (Gelid)
+ Thermic type: 10. Hipergelid

<table>
<thead>
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<tbody>
<tr>
<td>P−E ratio</td>
<td>0.07</td>
<td>0.27</td>
<td>0.34</td>
<td>0.15</td>
<td>0.22</td>
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<td>0.00</td>
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<td>Precipitation−effectiveness: 20.59</td>
<td>Temperature−efficiency: 0.00</td>
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  Moisture Index [MI=100*(P−PE)/PE] ......................: 0.00
  + C2.Subhumid humid (0<MI<20)
  Index of dryness [DI=100*d/PE] ...........................: 0.00
  + No deficit (0<DI<16.7)
  Index of humidity [HI=100*s/PE] ..........................: 0.00
  + No surplus (0<HI<10)
  Potential Evapotranspiration PE ..........................: 0.00
  + Ice climate (PE<142)
ANTARCTICA TERR.
78°11’S / 162°12’W / 42 m
LITTLE AMERICA
Period T-P [5-4]
Thornthwaite T-E Ratio
P-E Ratio
J A S O N D J F M A M J
0.0 0.5 1.0 1.5 2.0 2.5 3.0

ANTARCTICA TERR.
78°11’S / 162°12’W / 42 m
LITTLE AMERICA
Mean T
Mean Min
Abs Max
Abs Min
J A S O N D J F M A M J
−2.8 −41.7

LITTLE AMERICA
[5-4] +23.2 °C 263.7 mm

ANTARCTICA TERR.
78°11’S / 162°12’W / 42 m
LITTLE AMERICA
Period T-P [5-4]
Mediterranean Index [PE/P]
Ombrothermic Index [P/T]
J A S O N D J F M A M J
0.0 5.0 10.0 15.0 20.0 25.0 30.0