

Reference

Wind Chill Chart



Wind Chill Chart



		Temperature (°F)																		
Calm		40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	
Wind (mph)	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63	
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72	
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77	
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81	
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84	
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87	
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89	
Wind (mph)	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91	
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93	
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95	
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97	
	60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	

Frostbite Times 30 minutes 10 minutes 5 minutes

$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

Weights and Cubes of Common Items

Fuel	Tank Size	Gross Weight	Tare Weight	Cube	
Propane	55-Gallon	400lbs	50 lbs	16	
	5-Gallon	45 lbs	10 lbs	2	
	Net Quan- tity	Gross Weight	Tare Weight	Cube	
	Tank Size				
**Supply fills propane tanks to approximately 75% of capacity	100-pound	45kg	55 lbs	16	
	40-pound	18kg	29 lbs	4	
	20-pound	9kg	17 lbs	3	
	10-pound	5kg	13 lbs	2	
Mechanical Equipment Center	WEIGHT (lbs)	CUBE (ft³)	Dimensions (LxWxH in.)	Fuel	Tank Size
SNOW MOBILES					
Tundra snowmobile	400	123	115x37x50	Mogas/Oil	6.9 gallons
Skandic WT (1995, 96, 99)	575	136	119x41x48	Mogas/Oil	11 gallons
Skandic SWT 503 snowmobile	625	165	119x42x56	Mogas/Oil	11 gallons
Skandic SWT 550 snowmobile	675	160	124x43x52	Mogas/Oil	11 gallons
2009/11 Skandic WT 550 snowmobile	600	165		Mogas/Oil	12 gallon
Alpine I	685	118	114x35x51	Mogas/Oil	6.0 gallons
GENERATORS, BOXES					
1.0 Kw Honda generator	30	1.5	17x9x15	Mogas	0.61 gallons
1.8 Kw Honda generator	110	3.5	20x17x17	Mogas	2.9 gallons
Field Box; 1.8 Kw gen	65	9	27x22.5x24.5	n/a	No tank

REFERENCE

Weights and Cubes of Common Items *—continued*

GENERATORS, BOXES (continued)					
2.0 Kw Honda generator	50	2	18x18x10	Mogas	.96 gallons
2.5 Kw Honda generator	110	3	20x16x16	Mogas	2.9 gallons
3 Kw honda generator	68	3	17.3x15.7x18.9	Mogas	2.7 gallons
3.5 Kw Honda generator	145	5	24x20x19	Mogas	4.5 gallons
Field Box; 3.5/5.0 Kw gen	85	12	30x25x27.5	n/a	No tank
5.0 Kw Honda generator	180	6	26x20x20	Mogas	4.5 gallons
HEATERS					
Herman Nelson BT400-10 w/ cover	320	14	56x20x22	Mogas	16 gallons
Herman Nelson BT400-45 OCH w/ cover	350	34	54x23x48	Mogas	16 gallons
Herman Nelson BT400-45 OCH w/ cover and trailer	526	120	81x44x58	Mogas	16 gallons
Hermie Prime Mover, Honda GX 160, goes with -45	44	3.5	19x15x19	Mogas	No tank
Hermie Prime Mover, AU7-B-344, with -10	60	2.5	16x16 diam.	Mogas	No tank
Hermie Prime Mover AU7-B-344, with -10 w/ box	100	5	20x20x20	Mogas	No tank
Arcotherm (Field unit with skis)	395	115		JP8	
TRIWALL					
Triwall	20	3.5	20X20X16		
Triwall	35	31	41X36		
Triwall, large (44 cube)	42	44		None	No tank
Triwall, small (18 cube)	26	18		None	No tank

Conversion Table

	To Convert	To	Multiply By
Weight	Pounds	Kilograms	0.4536
	Kilograms	Pounds	2.2046
Distance	Inches	Millimeters	25.4
	Millimeters	Inches	0.0394
	Inches	Centimeters	2.54
	Centimeters	Inches	0.3937
	Meters	Feet	3.2808
	Feet	Meters	0.3048
	Meters	Yards	1.0936
	Yards	Meters	0.9144
	Kilometers	Miles	0.6214
	Miles	Kilometers	1.609
	Kilometers	Nautical Miles	0.5396
	Nautical Miles	Kilometers	1.853
	Statute Miles	Kilometers	1.6093
	Kilometers	Statute Miles	0.6213
Density	Cubic Feet	Cubic Meters	0.0283
	Cubic Meters	Cubic Feet	35.3145
	Cubic Yards	Cubic Meters	0.7646
	Cubic Meters	Cubic Yard	1.3079
Volume	Liters	Gallons	0.2642
	Gallons	Liters	3.7854
	Liters	Pint (liquid)	2.1134
	Pint (liquid)	Liters	0.4732

NZDT - Zulu Time Conversion

NZDT	Zulu	NZDT	Zulu
0:00	11:00	13:00	0:00
0:30	11:30	13:30	0:30
1:00	12:00	14:00	1:00
1:30	12:30	14:30	1:30
2:00	13:00	15:00	2:00
2:30	13:30	15:30	2:30
3:00	14:00	16:00	3:00
3:30	14:30	16:30	3:30
4:00	15:00	17:00	4:00
4:30	15:30	17:30	4:30
5:00	16:00	18:00	5:00
5:30	16:30	18:30	5:30
6:00	17:00	19:00	6:00
6:30	17:30	19:30	6:30
7:00	18:00	20:00	7:00
7:30	18:30	20:30	7:30
8:00	19:00	21:00	8:00
8:30	19:30	21:30	8:30
9:00	20:00	22:00	9:00
9:30	20:30	22:30	9:30
10:00	21:00	23:00	10:00
10:30	21:30	23:30	10:30
11:00	22:00	11:30	22:30
12:00	23:00		
12:30	23:30		

Weather observations are reported in Zulu Time. For example, the 8:00 am weather observation from a McMurdo-based field camp operating on New Zealand time would call in the 1900 Zulu observation.

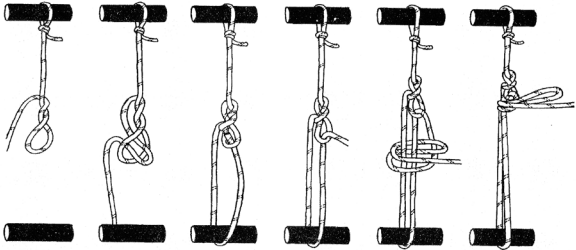
New Zealand Daylight Savings (NZDT) time is generally September to April. NZDT to Zulu is GMT+13 hours.

Temperature Conversions

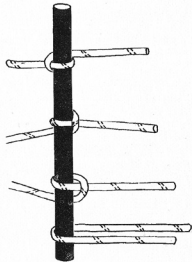
Fahrenheit	Celsius
40	4.44
35	1.67
32	0
30	-1.11
25	-3.88
20	-6.66
15	-9.44
10	-12.22
5	-15
0	-17.77
-5	-20.55
-10	-23.33
-15	-26.11
-20	-28.88
-25	-31.66
-30	-34.44
-35	-37.22
-40	-40.00
Fahrenheit to Celsius: (F degree-32) x (5/9)	
Celsius to Fahrenheit: (1.8 X C degree)+32	

Knots

TRUCKER'S HITCH



ITALIAN MÜNTER



WATER KNOT



CLOVE HITCH

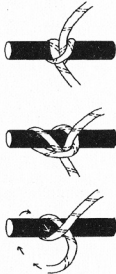


FIGURE 8

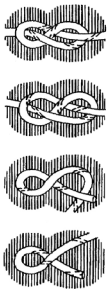
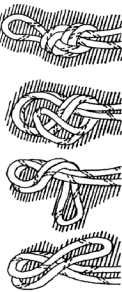
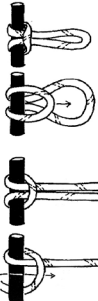


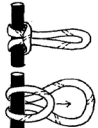
FIGURE 8 ON A BIGHT



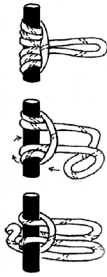
GIRTH ∇ 1 STRAND



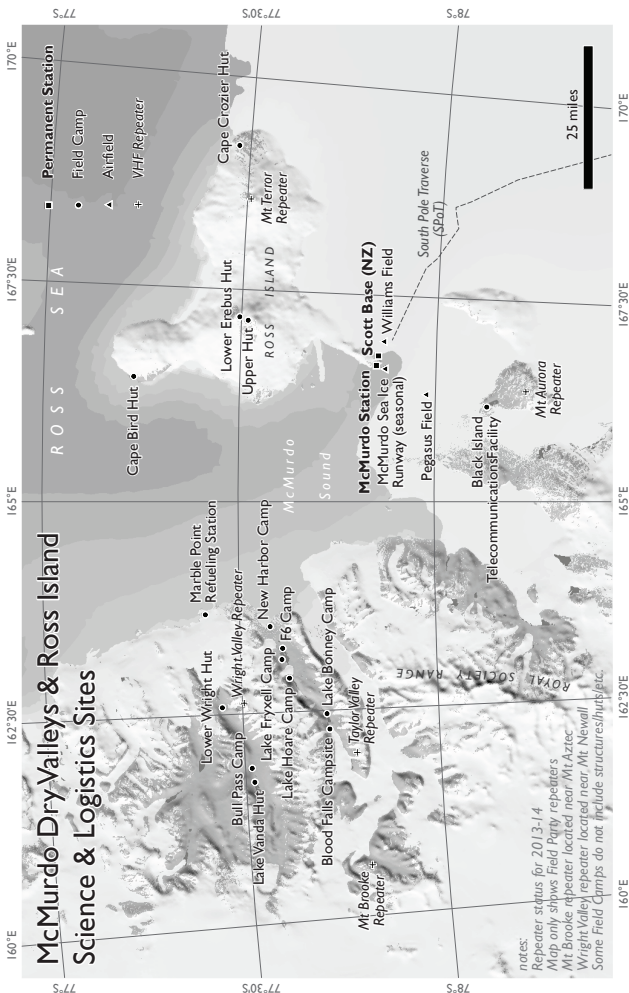
GIRTH ∇ A LOOP



PRUSSIK



Dry Valley and Ross Island Science Logistics



Taylor Valley camps



Dry Valley ASMA



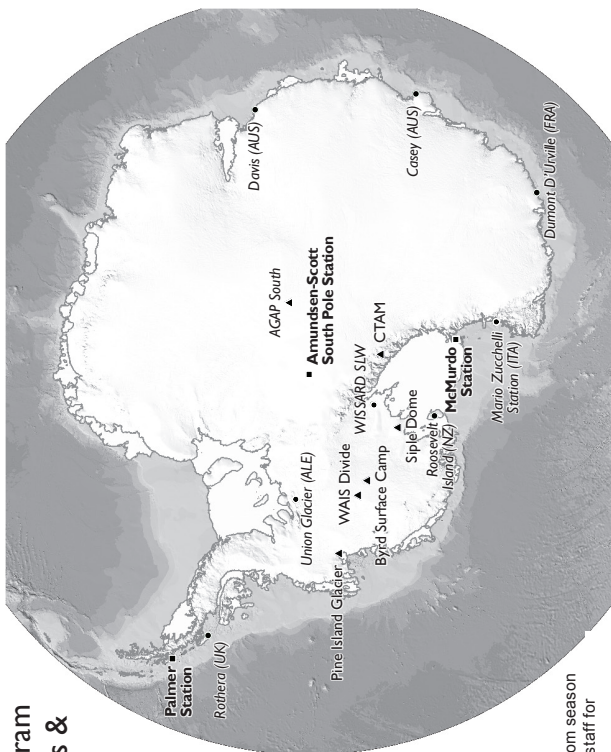
Ross Island ASMA's



Ross Island & Vicinity Protected Areas

Stations and Deep Field Camps

U.S. Antarctic Program Permanent Stations & Deep Field Camps



- Permanent U.S. Station
- ▲ Deep Field Camp
- Other USAP or International Site

Note: Deep-field camps change from season to season. Contact Field Support staff for current locations.

REFERENCE

