

# McMurdo Station Daily Observation Worksheet

Date: 01

Time	Winds		3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Zulu	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br		hrs	bs	hrs	Spd	Dir	Time			Spd	Dir	Time	
12-15Z					-27.7	-29.5									5	300	1314	5	300	1314					
15-18Z	100	13	-27.9	-26.4	-30.2										18	90	1700	20	90	1705	5	150			29.48
18-21Z				-27.0	-28.9										20	50	2005	25	50	2006					
21-24Z	30	16	-30.4	-28.6	-31.8										25	30	2318	31	20	2334	3				29.50
12 hr Max/Min				-26.4	-31.8																				
00-03Z				-28.4	-31.6										26	30	102	30	30	129					
03-06Z	40	18	-32.1	-29.6	-33.8										25	30	400	29	30	435	3				29.52
06-09Z				-32.1	-35.9										25	30	801	28	30	741					
09-12Z	30	4	-32.9	-32.9	-35.7										22	30	1034	27	30	1028	3				29.58
12 hr Max/Min				-28.4	-35.9																				

  

Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
				Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800		<9999	C	F	sn/sg/ic	fg/br	bs			Dir	Spd	Time	Dir	Spd	Time
50	13	-26.4	-35.9	-31.2	00-06L	0	0	0	-60.0	-76.0	0	0	0	0.00	30	26	102	20	31	2334			00-06L	0	0	0
					06-12L	0	0	0					Altimeter						4	150	06-12L	0	0	0		
					12-18L	0	0	0					Max										12-18L	0	0	0
					18-24L	0	0	0					Min										18-24L	0	0	0
													Avg													
													Total Obs Taken													
													Daily Pres Diff													
													Daily Temp Diff													
													4													
													0.10													
													9.5													

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

## McMurdo Station Daily Observation Worksheet

Date: 02

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z				-32.9	-35.1										24	30	1326	30	20	1410						
15-18Z	20	11	-36.1	-32.7	-36.3										20	30	1605	25	30	1603	6	150		29.60		
18-21Z				-33.5	-34.9										9	340	1929	24	350	1843						
21-24Z	30	6	-32.0	-30.8	-36.8										9	70	2112	11	70	2111	4			29.58		
12 hr Max/Min				-30.8	-36.8																					
00-03Z				-29.1	-33.7										10	30	9	13	30	8						
03-06Z	0	0	-30.9	-30.2	-32.0										3	160	450	4	180	311	6			29.53		
06-09Z	0	0	-34.4	-31.8	-34.8										3	150	731	M	M	M	4			29.51		
09-12Z	0	0	-37.7	-34.1	-37.9										4	290	1140	6	310	958	6	100		29.50		
12 hr Max/Min				-29.1	-37.9																					
Avg Wind		Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)				
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000
24	3	-29.1	-37.9	-33.5	00-06L	0	0	0	-56.0	-69.0	0	0	0	0.00	30	24	1326	20	30	1410	5	100	00-06L	0	0	0
					06-12L	0	0	0						Altimeter			Total	Daily	Daily							
					12-18L	0	0	0						Max	Min	Avg	Obs	Pres	Temp							
					18-24L	0	0	0						29.60	29.50	29.54	Taken	Diff	Diff							
																5	0.10	8.8								

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 03

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)	
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000		<3000
12-15Z	0	0	-36.2	-35.1	-38.0										3	270	1403	6	290	1350	6	90				29.49	
15-18Z	320	5	-35.7	-30.5	-39.5										7	160	1630	9	160	1630	6	90				29.47	
18-21Z	0	0	-35.0	-34.1	-37.2										5	280	1838	6	270	1845	1					29.44	
21-24Z	0	0	-28.5	-27.0	-34.5										6	330	2249	10	320	2237	2					29.41	
12 hr Max/Min			-27.0	-39.5																							
00-03Z	0	0	-26.5	-26.2	-28.9										6	340	2358	11	350	116	1					29.37	
03-06Z	300	5	-28.2	-26.5	-28.9										7	300	457	12	300	331	3					29.36	
06-09Z	310	5	-28.6	-28.2	-33.4										6	310	608	9	340	850	4					29.36	
09-12Z	320	3	-31.8	-27.5	-33.4										5	310	1150	9	310	921	3					29.36	
12 hr Max/Min			-26.2	-33.4																							
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg	Low-est	Ceiling (hrs)						
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Cover	CIG	Time	<500	<1000	<3000	
312	2	-26.2	-39.5	-32.9	00-06L	0	0	0	-42.0	-44.0	0	0	0	0.00	160	7	1630	300	12	331	3	90	00-06L	0	0	0	
					06-12L	0	0	0							Altimeter			Total	Daily	Daily			06-12L	0	0	0	
					12-18L	0	0	0							Max	Min	Avg	Obs	Pres	Temp			12-18L	0	0	0	
					18-24L	0	0	0							29.49	29.36	29.41	Taken	Diff	Diff			18-24L	0	0	0	
																		8	0.13	13.3							

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

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## McMurdo Station Daily Observation Worksheet

Date: 04

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	0	0	-33.4	-31.6	-34.4										6	160	1343	7	150	1343	5	150				29.34
15-18Z	0	0	-31.7	-30.9	-33.3										4	130	1730	5	130	1729	4				29.32	
18-21Z	0	0	-30.1	-29.1	-33.7										5	140	1837	6	150	1835	4				29.31	
21-24Z	0	0	-31.1	-27.3	-32.7										4	300	2121	6	350	2317	5	150				29.32
<b>12 hr Max/Min</b>				<b>-27.3</b>	<b>-34.4</b>																					
00-03Z	330	5	-27.9	-27.0	-30.8										9	340	129	M	M	M	5	150				29.28
03-06Z	0	0	-26.3	-26.3	-28.8										9	300	411	M	M	M	2					29.26
06-09Z	0	0	-31.1	-26.9	-31.5										4	310	558	M	M	M	1					29.24
09-12Z	0	0	-35.3	-31.2	-35.3										2	50	1146	3	210	1140	0					29.22
<b>12 hr Max/Min</b>				<b>-26.3</b>	<b>-35.3</b>																					
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg	Low-	Ceiling (hrs)					
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Sky Cover	est CIG	Time	<500	<1000	<3000
330	1	-26.3	-35.3	-30.8	00-06L	0	0	0	-33.0	-27.0	0	0	0	0.00	340	9	129	150	7	1343	3	150	00-06L	0	0	0
					06-12L	0	0	0						Altimeter			Total	Daily	Daily							
					12-18L	0	0	0						Obs	Pres	Temp										
					18-24L	0	0	0						29.34	29.22	29.29	Taken	Diff	Diff							
													8	0.12	9.0											

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 05

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)	
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000		<3000
12-15Z	0	0	-35.8	-34.8	-37.7										3	240	1450	6	260	1348	1				29.22		
15-18Z	290	5	-29.9	-29.2	-35.0										8	130	1532				2				29.23		
18-21Z	0	0	-23.6	-22.6	-30.8										8	310	1916	11	310	1915	3				29.24		
21-24Z	290	5	-26.8	-21.3	-28.3										11	300	2324	12	300	2332	7				29.24		
<b>12 hr Max/Min</b>				<b>-21.3</b>	<b>-37.7</b>																						
00-03Z	250	8	-24.3	-32.8	-25.0										11	300	249	16	270	247	8				29.21		
03-06Z	40	3	-20.3	-19.6	-25.3	3			SN	3				0.03	13	310	339				8	20			3	29.23	
06-09Z	100	11	-11.9	-11.8	-20.0	3			SN	3		BS	1		13	90	850	19	110	819	8	20			3	29.27	
09-12Z	60	12	-14.4	-11.9	-14.5	1			SN	1		BS	1	0.10	17	80	1045	30	140	911	7	60			1	29.34	
<b>12 hr Max/Min</b>				<b>-11.8</b>	<b>-25.3</b>																						
Avg Wind		Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg	Low-est	Ceiling (hrs)					
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Sky Cover	CIG	Time	<500	<1000	<3000	
41	6	-11.8	-37.7	-24.8	00-06L	0	0	0	-46.0	-51.0		7	0	2	0.13	80	17	1045	140	30	911	6	20	00-06L	0	0	0
					06-12L	0	0	0						Altimeter			Total	Daily	Daily								
					12-18L	0	0	0						Max	Min	Avg	Obs	Pres	Temp								
					18-24L	4	0	0						29.34	29.21	29.25	Taken	Diff	Diff								
																8	0.13	25.9									

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

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## McMurdo Station Daily Observation Worksheet

Date: 06

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)			
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000		<3000		
12-15Z	120	9	-16.6	-14.3	-16.7										20	130	1327	26	140	1340	6	150				29.42			
15-18Z	30	15	-18.1	-16.8	-18.8										16	40	1750	23	40	1750	4				29.40				
18-21Z	50	13	-18.7	-18.1	-19.8										24	20	1811	30	30	1811	3				29.43				
21-24Z	50	14	-19.0	-16.4	-19.1										18	40	2236	25	100	2144	2				29.42				
12 hr Max/Min			-14.3	-19.8																									
00-03Z	120	8	-13.9	-13.8	-18.8										20	40	2359	25	40	2359	2				29.40				
03-06Z	50	13	-14.6	-13.3	-17.1										14	40	543	20	50	542	1				29.36				
06-09Z	60	15	-17.2	-14.2	-17.9										20	50	800	25	50	758	1				29.32				
09-12Z	80	9	-17.1	-16.7	-19.4										16	80	1118	19	80	1118	0				29.25				
12 hr Max/Min			-13.3	-19.4																									
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg	Low-	Ceiling (hrs)								
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Sky Cover	est CIG	Time	<500	<1000	<3000			
62	12	-13.3	-19.8	-16.6	00-06L	0	0	0	-47.0	-53.0	0	0	0	0.00	20	24	1811	30	30	1811	2	150	00-06L	0	0	0			
					06-12L	0	0	0						Altimeter			Total	Daily	Daily										
					12-18L	0	0	0									Obs	Pres	Temp										
					18-24L	0	0	0									29.43	29.25	29.38	8	0.18	6.5							

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Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

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## McMurdo Station Daily Observation Worksheet

Date: 07

Time	Winds		3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)	
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs		bs	hrs	Spd	Dir	Time	Spd			Dir	Time	<500		<1000
12-15Z	0	0	-18.5	-13.4	-19.9										14	110	1406	18	100	1240	0				29.17	
15-18Z	0	0	-20.7	-17.7	-21.4										5	40	1617	M	M	M	0				29.09	
18-21Z	0	0	-21.1	-16.1	-23.1										11	330	1911	M	M	M	1				29.05	
21-24Z	40	5	-18.7	-16.1	-24.9										11	80	2329	15	90	2245	1				29.04	
12 hr Max/Min				-13.4	-24.9																					
00-03Z	90	11	-16.9	-13.4	-17.4										14	80	102	20	60	59	1				28.99	
03-06Z	130	22	-17.7	-16.5	-19.6										25	130	513	37	130	318	3				28.98	
06-09Z	100	15	-20.4	-17.8	-21.3				1			/bs		1	23	130	707	32	130	704	4				28.98	
09-12Z	110	13	-22.5	-20.5	-23.7										23	50	1111	29	130	928	5	150			29.02	
12 hr Max/Min				-13.4	-23.7																					
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg	Low-	Ceiling (hrs)					
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Sky Cover	est CIG	Time	<500	<1000	<3000
107	8	-13.4	-24.9	-19.2	00-06L	0	0	0	-43.0	-45.0	0	0	1	0.00	130	25	513	130	37	318	2	150	00-06L	0	0	0
					06-12L	0	0	0						Altimeter			Total	Daily	Daily							
					12-18L	0	0	0						Max	Min	Avg	Obs	Pres	Temp							
					18-24L	0	0	1						29.17	28.98	29.04	Taken	Diff	Diff							
																	8	0.19	11.5							

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

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## McMurdo Station Daily Observation Worksheet

Date: 08

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	60	16	-26.4	-22.7	-26.8										19	50	1307	24	50	1306	4				29.07	
15-18Z	110	9	-22.9	-21.4	-26.8										21	50	1543	26	50	1602	6	150			29.09	
18-21Z	90	4	-22.4	-21.3	-23.2										12	110	1938	20	130	1938	1				29.14	
21-24Z	50	5	-19.4	-19.1	-22.7										16	140	2147	21	150	2149	2				29.15	
12 hr Max/Min			-19.1	-26.8																						
00-03Z	130	6	-19.2	-18.6	-19.5										9	130	221	13	140	217	6	100				
03-06Z	0	0	-21.3	-18.7	-21.4										7	140	435	11	130	330	7	85			29.16	
06-09Z	0	0	-19.3	-19.7	-22.8										5	50	610	7	220	626	7	70			29.15	
09-12Z	0	0	-18.7	-18.5	-21.5										4	30	1125	7	210	1133	7	80			29.12	
12 hr Max/Min			-18.5	-22.8																						
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg	Low-	Ceiling (hrs)					
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Sky Cover	est CIG	Time	<500	<1000	<3000
83	5	-18.5	-26.8	-22.7	00-06L	0	0	0	-50.0	-58.0	0	0	0	0.00	50	21	1543	50	26	1602	5	70	00-06L	0	0	0
					06-12L	0	0	0						Altimeter			Total	Daily	Daily							
					12-18L	0	0	0						Max	Min	Avg	Obs	Pres	Temp							
					18-24L	0	0	0						29.16	29.07	29.13	Taken	Diff	Diff							
																8	0.09	8.3								

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 09

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)	
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000		<3000
12-15Z	130	8	-15.7	-15.1	-20.9										8	110	1450	13	120	1448	7	80				29.13	
15-18Z	110	13	-13.5	-13.2	-14.9										18	120	1649	27	140	1648	6	80				29.15	
18-21Z	50	16	-16.1	-13.0	-16.2										24	50	2001	29	50	2015	6	80				29.20	
21-24Z	90	12	-14.4	-14.0	-16.1										17	120	2257	27	110	2242	7	150				29.19	
12 hr Max/Min			-13.0	-20.9																							
00-03Z	70	15	-12.4	-12.2	-14.2										15	80	249	18	80	248	7	80				29.16	
03-06Z	0	0	-12.1	-8.9	-12.6										14	70	257	17	40	310	8	70				29.11	
06-09Z	0	0	-12.4	-11.3	-16.0										8	80	812	13	70	811	8	80				29.10	
09-12Z	140	15	-11.8	-10.0	-13.2										20	140	1039	28	140	1038	7	80				29.08	
12 hr Max/Min			-8.9	-16.0																							
Avg Wind		Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000	
95	10	-8.9	-20.9	-14.9	00-06L	0	0	0	-36.0	-33.0	0	0	0	0.00	50	24	2001	50	29	2015	7	70	00-06L	0	0	0	
					06-12L	0	0	0						Altimeter			Total Obs	Daily Pres	Daily Temp								
					12-18L	0	0	0									29.20	29.08	29.14	8	0.12	12.0					
					18-24L	0	0	0																			

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.





## McMurdo Station Daily Observation Worksheet

Date: 10

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	130	21	-13.8	-11.3	-14.6										24	130	1426	31	130	1425	7	90				29.07
15-18Z	60	9	-12.8	-12.3	-14.0										26	120	1512	33	140	1508	7	90				29.05
18-21Z	130	12	-11.7	-11.4	-12.8										21	130	2050	27	140	2050	7	90				29.02
21-24Z	130	8	-10.2	-9.7	-12.2										24	130	2223	32	150	2057	6	150				29.00
<b>12 hr Max/Min</b>				<b>-9.7</b>	<b>-14.6</b>																					
00-03Z	150	21	-12.4	-9.4	-12.6			1				bs	1		27	170	159	31	170	135	6	150				28.99
03-06Z	140	24	-13.1	-12.3	-13.5		1	2				bs	3		27	150	447	33	150	502	6	150				29.00
06-09Z	50	10	-13.9	-12.6	-15.5			1				bs	1		25	140	604	34	150	603	7	60				28.96
09-12Z	60	12	-13.1	-10.4	-13.4										19	140	1010	25	60	1145	7	60				28.99
<b>12 hr Max/Min</b>				<b>-9.4</b>	<b>-15.5</b>																					
Avg Wind		Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg	Low-est	Ceiling (hrs)				
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Sky Cover	CIG	Time	<500	<1000	<3000
119	15	-9.4	-15.5	-12.5	00-06L	0	0	0	-37.0	-35.0	0	0	5	0.00	170	27	159	150	34	603	7	60	00-06L	0	0	0
															Altimeter			Total	Daily	Daily						
															Max	Min	Avg	Obs	Pres	Temp						
															29.07	28.96	29.01	8	0.11	6.1						
																		8	0.11	6.1						

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 11

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Zulu	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs		bs	hrs	Spd	Dir	Time	Spd			Dir	Time	<500	
12-15Z	100	11	-11.4	-11.4	-13.1										13	80	1346	20	40	1342	7	70				28.97
15-18Z	70	12	-10.2	-9.9	-12.1										18	40	1704	25	140	1522	7	70				28.92
18-21Z	150	18	-7.5	-6.7	-9.9										18	140	2038	25	150	2050	7	90				28.91
21-24Z	120	10	-7.4	-7.1	-7.7										23	150	2106	27	150	2119	7	90				28.93
<b>12 hr Max/Min</b>				<b>-6.7</b>	<b>-13.1</b>																					
00-03Z	110	14	-7.6	-7.3	-8.6										17	110	236	27	140	236	4					28.90
03-06Z	110	14	-13.0	-7.4	-12.4										17	80	530	25	90	303	4					28.99
06-09Z	120	12	-11.0	-10.5	-14.2										28	130	622	43	130	615	3					29.00
09-12Z	110	16	-11.2	-10.5	-11.8										20	120	857	29	110	1131	1					29.03
<b>12 hr Max/Min</b>				<b>-7.3</b>	<b>-14.2</b>																					
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
Dir	Spd	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br		bs	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000	
113	13	-6.7	-14.2	-10.5	00-06L	0	0	0	-35.0	-31.0	0	0	0	0.00	130	28	622	130	43	615	5	70	00-06L	0	0	0
												Altimeter			Total Obs Taken	Daily Pres Diff	Daily Temp Diff									
												29.03	28.90	28.96	8	0.13	7.5									

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 12

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	130	14	-10.4	-9.4	-12.2										29	160	1424	36	190	1424	2				29.07	
15-18Z	130	19	-9.0	-8.8	-10.9										21	140	1505	30	150	1509	5	150			29.11	
18-21Z	100	15	-10.5	-8.8	-10.5										22	140	1804	29	150	1803	7	100			29.14	
21-24Z	70	14	-10.4	-10.1	-11.1										17	70	2142	25	110	2213	6	100			29.19	
<b>12 hr Max/Min</b>				<b>-8.8</b>	<b>-12.2</b>																					
00-03Z	120	17	-11.6	-10.1	-11.8										27	40	135	34	40	135	6	100			29.20	
03-06Z	80	13	-12.5	-10.8	-12.8										27	130	436	44	130	426	6	120			29.28	
06-09Z	140	15	-11.3	-11.2	-13.2										18	50	604	21	50	650	5	150			29.27	
09-12Z	70	10	-13.1	-10.5	-14.7										21	130	914	29	130	914	2				29.31	
<b>12 hr Max/Min</b>				<b>-10.1</b>	<b>-14.7</b>																					
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
Dir	Spd	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br		bs	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000	
108	15	-8.8	-14.7	-11.8	00-06L	0	0	0	-32.0	-26.0	0	0	0	0.00	160	29	1424	130	44	426	5	100	00-06L	0	0	0
				06-12L	0	0	0					Altimeter			Total Obs	Daily Pres	Daily Temp									
				12-18L	0	0	0					Max	Min	Avg	29.31	29.07	29.20	8	0.24	5.9						
				18-24L	0	0	0																			

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 13

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	50	13	-12.1	-12.1	-13.3										18	50	1349	23	50	1326	7	80				29.29
15-18Z	50	14	-10.4	-9.8	-12.6										17	40	1540	22	40	1543	7	80				29.23
18-21Z	120	24	-14.1	-10.2	-16.5										28	150	1958	36	120	2033	7	80				29.25
21-24Z	30	15	-14.8	-13.2	-15.8										19	80	2111	28	130	2058	4					29.22
12 hr Max/Min				-9.8	-16.5																					
00-03Z	50	21	-15.3	-15.1	-17.5										22	50	200	27	40	201	2					29.17
03-06Z	50	7	-14.2	-14.2	-15.7										19	70	516	24	40	326	1					29.14
06-09Z		0	-14.0	-12.8	-14.3										8	30	647	10	10	658	1					29.12
09-12Z	30	3	-18.3	-14.2	-18.6										5	30	1029	5	350	1134	1					29.11
12 hr Max/Min				-12.8	-18.6																					
Avg Wind		Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)				
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000
62	12	-9.8	-18.6	-14.2	00-06L	0	0	0	-36.0	-33.0	0	0	0	0.00	150	28	1958	120	36	2033	4	80	00-06L	0	0	0
					06-12L	0	0	0						Altimeter			Total	Daily	Daily							
					12-18L	0	0	0						Max	Min	Avg	Obs	Pres	Temp							
					18-24L	0	0	0						29.29	29.11	29.19	Taken	Diff	Diff							
																7	0.18	8.8								

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.





## McMurdo Station Daily Observation Worksheet

Date: 14

Time	Winds			3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min		<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	70	3	-18.3	-18.1	-19.6										7	80	1401	8	80	1400	1				29.12		
15-18Z	40	15	-20.9	-16.6	-21.2										17	80	1657	21	80	1650	1				29.14		
18-21Z	30	19	-19.6	-19.2	-22.8										23	30	2016	27	30	2028	2				29.16		
21-24Z	70	9	-15.4	-15.4	-19.4										20	50	2103	25	40	2058	1				29.19		
12 hr Max/Min			-15.4	-22.8																							
00-03Z	80	7	-15.1	-14.5	-16.0										13	60	18	15	80	126	1				29.20		
03-06Z	100	10	-15.3	-14.7	-15.7										13	90	438	18	80	438	1				29.22		
06-09Z	80	6	-15.4	-15.0	-15.6										11	80	748	16	100	723	1				29.24		
09-12Z	110	5	-17.6	-15.7	-17.8										11	110	1059	17	120	1058	1				29.24		
12 hr Max/Min			-14.5	-17.8																							

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

Avg Wind Dir	Max Spd	Min Temp	Avg Temp	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
				Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br		bs	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000	
62	9	-14.5	-22.8	-18.7	00-06L	0	0	0	-44.0	-47.0	0	0	0	0.00	30	23	2016	30	27	2028	1		00-06L	0	0	0
					06-12L	0	0	0							Altimeter						1		06-12L	0	0	0
					12-18L	0	0	0							Max	Min	Avg	Total Obs Taken	Daily Pres Diff	Daily Temp Diff			12-18L	0	0	0
					18-24L	0	0	0							29.24	29.12	29.19	8	0.12	8.3			18-24L	0	0	0



## McMurdo Station Daily Observation Worksheet

Date: 15

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	50	16	-22.1	-17.9	-22.1										18	50	1449	22	50	1410	1				29.29	
15-18Z	100	14	-20.6	-20.4	-22.3										18	50	1511	23	50	1509	2				29.32	
18-21Z	50	13	-21.6	-20.0	-22.1										16	50	1927	21	60	1926	2				29.33	
21-24Z	50	14	-20.4	-19.9	-21.5										16	50	2324	20	30	2236	2				29.33	
12 hr Max/Min				-17.9	-22.3																					
00-03Z	40	16	-19.6	-19.4	-20.6										16	40	204	22	50	108	6	160			29.30	
03-06Z	40	14	-18.9	-18.5	-19.7										17	30	538	20	30	536	6	150			29.28	
06-09Z	50	16	-17.5	-17.5	-19.1										18	30	700	21	50	743	6	150			29.25	
09-12Z	170	3	-18.9	-17.7	-19.9										16	30	957	18	30	1000	6	150			29.20	
12 hr Max/Min				-17.5	-20.6																					

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
				Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800		<9999	C	F	sn/sg/ic	fg/br	bs			Dir	Spd	Time	Dir	Spd	Time
55	13	-17.5	-22.3	-19.9	00-06L	0	0	0	-44.0	-47.2	0	0	0	0.00	50	18	1449	50	23	1509	4	150	00-06L	0	0	0
					06-12L	0	0	0							Altimeter								06-12L	0	0	0
					12-18L	0	0	0							Max	Min	Avg	Total Obs Taken	Daily Pres Diff	Daily Temp Diff			12-18L	0	0	0
					18-24L	0	0	0							29.33	29.20	29.29	8	0.13	4.8			18-24L	0	0	0



## McMurdo Station Daily Observation Worksheet

Date: 16

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)	
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000		<3000
12-15Z	0	0	-24.3	-19.0	-25.1										4	20	1410	5	30	1410	6	150				29.16	
15-18Z	330	8	-19.2	-18.9	-25.4										8	330	1742	11	340	1749	5	150				29.14	
18-21Z	320	6	-17.9	-17.7	-18.9										9	330	1834	13	350	1820	4					29.13	
21-24Z	300	4	-16.5	-16.1	-17.7										7	300	2208	10	340	2059	2					29.12	
12 hr Max/Min				-16.1	-25.4																						
00-03Z	80	6	-16.6	-14.8	-17.4										6	90	249	8	80	248	1					29.12	
03-06Z	0	0	-13.7	-12.8	-17.0										7	80	313	10	100	312	1					29.12	
06-09Z	100	6	-17.4	-13.2	-18.2										7	90	849	10	90	850	0					29.14	
09-12Z	90	8	-18.7	-17.5	-20.0										14	80	1037	18	80	1036	0					29.17	
12 hr Max/Min				-12.8	-20.0																						
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg Sky	Low-est	Ceiling (hrs)			Alt			
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Cover	CIG	Time		<500	<1000	<3000
32	5	-12.8	-25.4	-19.1	00-06L	0	0	0	-42.0	-43.6	0	0	0	0.00	80	14	1037	80	18	1036	2	150	00-06L	0	0	0	
					06-12L	0	0	0							Altimeter			Total	Daily	Daily			06-12L	0	0	0	
					12-18L	0	0	0							Max	Min	Avg	Obs	Pres	Temp			12-18L	0	0	0	
					18-24L	0	0	0							29.17	29.12	29.14	Taken	Diff	Diff			18-24L	0	0	0	
																		8	0.05	12.6							

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



McMurdo Station Daily Observation Worksheet

Date: 17

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	60	7	-17.9	-17.7	-18.9										14	50	1203	17	50	1203	0				29.19	
15-18Z	0	0	-18.6	-17.8	-23.0										8	60	1500	9	70	1531	1				29.21	
18-21Z	0	0	-15.4	-15.3	-21.9										8	340	1918	12	340	1921	2				29.22	
21-24Z	270	5	-13.1	-11.7	-16.8										8	300	2240	10	310	2237	4				29.22	
12 hr Max/Min				-11.7	-23.0																					
00-03Z	0	0	-13.1	-12.9	-15.8										4	300	46	7	270	42	7				29.22	
03-06Z	120	14	-12.8	-17.7	-11.0										20	120	536	27	130	538	7				29.23	
06-09Z	100	7	-12.6	-12.4	-13.7										18	130	607	24	130	608	6				29.21	
09-12Z	70	7	-13.2	-11.2	-14.7		2								11	40	946	15	60	920	8	20		2	29.23	
12 hr Max/Min				-11.2	-15.8																					

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
				Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br		bs	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000	
95	5	-11.2	-23.0	-17.1	00-06L	0	0	0	-30.0	-22.0	0	7	0	0.00	120	20	536	130	27	538	4	20	00-06L	0	0	0
					06-12L	0	0	0							Altimeter			Total Obs Taken	Daily Pres Diff	Daily Temp Diff			06-12L	0	0	0
					12-18L	0	0	0						Max	Min	Avg	29.23				29.19	29.22			12-18L	0
					18-24L	0	2	0										8	0.04	11.8			18-24L	0	0	2





## McMurdo Station Daily Observation Worksheet

Date: 18

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	50	9	-13.4	-12.9	-13.9				SN	1				T	12	50	1423	18	80	1329	7	50				29.23
15-18Z	50	4	-13.7	-12.8	-16.9										21	50	1506	25	40	1601	1				29.21	
18-21Z	140	7	-12.7	-11.2	-13.0										9	140	2021	10	140	2021	5	150			29.20	
21-24Z	60	9	-13.1	-11.5	-13.7										10	80	2334	15	80	2303	7	150			29.19	
12 hr Max/Min				-11.2	-16.9																					
00-03Z	50	19	-13.9	-13.3	-14.4										19	50	249	23	50	235	5	150			29.16	
03-06Z	50	12	-14.5	-14.4	-16.0										18	60	343	24	50	339	2				29.12	
06-09Z	330	6	-14.4	-12.9	-14.7										12	50	602	15	40	618	3				29.10	
09-12Z	0	0	-18.1	-14.6	-21.0										8	310	1005	11	310	923	4				29.08	
12 hr Max/Min				-12.9	-21.0																					
Avg Wind		Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)				
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000
53	8	-11.2	-21.0	-16.1	00-06L	0	0	0	-29.0	-20.0	1	0	0	0.00	50	21	1506	40	25	1601	4	50	00-06L	0	0	0
					06-12L	0	0	0						Altimeter			Total	Daily	Daily							
					12-18L	0	0	0						Max	Min	Avg	Obs	Pres	Temp							
					18-24L	0	0	0						29.23	29.08	29.16	Taken	Diff	Diff							
																8	0.15	9.8								

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 19

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	330	3	-16.2	-15.6	-18.0										5	340	1402	7	340	1400	3				29.04	
15-18Z	0	0	-17.3	-16.2	-18.6										4	360	1730	5	360	1730	6	80			28.99	
18-21Z	3	3	-15.2	-14.3	-16.9										5	310	2023	7	300	2019	8	25		1	28.95	
21-24Z	310	7	-14.6	-13.5	-16.2				/SN	2				T	7	310	2350	9	270	2344	8	25		3	28.90	
12 hr Max/Min				-13.5	-18.6																					
00-03Z	30	9	-12.6	-11.2	-14.7				2/SN	2/BR	1				11	30	237	14	20	236	8	25		3	28.87	
03-06Z		3	-12.2	-11.8	-12.4				2/SN	2/BR	2			T	9	60	339	12	50	338	7	50		2	28.83	
06-09Z	130	7	-13.4	-10.5	-15.7										9	120	846	14	140	840	7	80			28.81	
09-12Z	90	10	-14.7	-13.0	-15.1										11	80	1149	16	150	1048	7	70			28.81	
12 hr Max/Min				-10.5	-15.7																					
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic		fg/br	bs	Dir	Spd	Time	Dir			Spd	Time	Time	<500	<1000	<3000
51	5	-10.5	-18.6	-14.6	00-06L	0	0	0	-28.0	-18.0	6	3	0	0.00	30	11	237	150	16	1048	7	25	00-06L	0	0	0
					06-12L	0	0	0						Altimeter			Total Obs	Daily Pres	Daily Temp							
					12-18L	0	0	4						Max	Min	Avg	Taken	Diff	Diff							
					18-24L	0	0	0						29.04	28.81	28.90	6	0.23	8.1							

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 20

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	60	7	-14.6	-14.5	-15.6										18	130	1226	23	140	1229	3				28.81	
15-18Z	0	0	-12.1	-11.2	-14.9										10	50	1502	12	60	1606	4				28.78	
18-21Z	0	0	-11.6	-9.5	-12.9										7	300	204	11	310	2041	7	70			28.76	
21-24Z	70	8	-10.9	-10.9	-13.6										11	120	2239	17	150	2227	8	45			28.78	
12 hr Max/Min				-9.5	-15.6																					
00-03Z	80	13	-12.1	-10.3	-13.5										19	130	145	29	110	132	7	50			28.84	
03-06Z	50	11	-10.7	-10.4	-12.2										18	30	528	23	30	528	7	80			28.83	
06-09Z	70	4	-9.5	-9.3	-10.5										16	30	700	18	30	659	7	100			28.85	
09-12Z	140	20	-13.3	-9.2	-13.6										20	140	1148	25	150	1148	5	150			28.88	
12 hr Max/Min				-9.2	-13.6																					
Avg Wind		Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg Sky	Low-est	Ceiling (hrs)				
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Cover	CIG	Time	<500	<1000	<3000
88	8	-9.2	-15.6	-12.4	00-06L	0	0	0	-34.0	-29.0	0	0	0	0.00	140	20	1148	110	29	132	6	45	00-06L	0	0	0
					06-12L	0	0	0						Altimeter			Total	Daily	Daily							
					12-18L	0	0	0						Max	Min	Avg	Obs	Pres	Temp							
					18-24L	0	0	0						28.88	28.76	28.82	Taken	Diff	Diff							
																8	0.12	6.4								

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 21

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)	
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000		<3000
12-15Z	100	15	-14.7	-12.1	-14.7										25	150	1227	31	130	1419	6	150				28.98	
15-18Z	100	5	-11.8	-11.4	-14.4										25	130	1508	36	160	1507	7	45				28.97	
18-21Z	40	12	-10.5	-10.5	-12.3										20	130	1945	29	140	1944	7	150				29.01	
21-24Z	70	15	-14.7	-9.6	-14.8										20	50	2324	24	80	2338	3					29.00	
12 hr Max/Min				-9.6	-14.8																						
00-03Z	50	15	-13.3	-13.1	-15.2										23	30	128	27	30	242	4						28.99
03-06Z	60	13	-11.9	-11.6	-13.1										24	30	259	29	20	302	6	150					28.99
06-09Z	70	13	-15.4	-11.5	-15.5										16	60	850	19	80	849	6	150					29.00
09-12Z	70	7	-13.4	-13.4	-15.3										18	50	920	21	50	920	3						28.99
12 hr Max/Min				-11.5	-15.5																						

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
				Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800		<9999	C	F	sn/sg/ic	fg/br	bs			Dir	Spd	Time	Dir	Spd	Time
68	12	-9.6	-15.5	-12.6	00-06L	0	0	0	-33.0	-27.0	0	0	0	0.00	150	25	1227	160	36	1507	5	45	00-06L	0	0	0
					06-12L	0	0	0							Altimeter			Total Obs	Daily Pres	Daily Temp			06-12L	0	0	0
					12-18L	0	0	0							Max	Min	Avg	Taken	Diff	Diff			12-18L	0	0	0
					18-24L	0	0	0							29.01	28.97	28.99	8	0.04	5.9			18-24L	0	0	0





## McMurdo Station Daily Observation Worksheet

Date: 22

Time	Winds			3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min		<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	0	0	-17.3	-13.3	-18.0											8	50	1259	12	50	1242	3				28.99	
15-18Z	330	4	-16.0	-15.7	-18.7				/SN	1					T	13	340	1618	19	340	1617	8	50			28.97	
18-21Z	0	0	-15.5	-15.3	-16.2				/SN	3						8	310	1902	11	310	1824	7	6			28.97	
21-24Z	0	0	-13.5	-12.2	-15.4				/SN	3					T	3	170	2335	4	270	2058	8	30			28.96	
12 hr Max/Min			-12.2	-18.7																							
00-03Z	0	0	-11.6	-11.3	-13.2		1		2/SN	3						4	180	149	5	190	149	8	30			3	28.94
03-06Z	0	0	-12.7	-11.3	-13.3				3/SN	3					T	3	230	432	4	240	405	7	30				28.92
06-09Z	320	3	-14.3	-12.7	-14.4				2/SN	3						5	310	821	7	310	819	7	50				28.91
09-12Z	340	7	-14.7	-14.3	-14.7				/SN	3					T	7	340	1150	9	350	1147	7	100				28.89
12 hr Max/Min			-11.3	-14.7																							

  

Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
				Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800		<9999	C	F	sn/sg/ic	fg/br	bs			Dir	Spd	Time	Dir	Spd	Time
333	2	-11.3	-18.7	-15.0	00-06L	0	0	0			19	0	0	0.00	340	13	1618	340	19	1617	7	6	00-06L	0	0	0
					06-12L	0	0	0							Altimeter			Total Obs	Daily Pres	Daily Temp			06-12L	0	0	0
					12-18L	0	1	5							Max	Min	Avg	Taken	Diff	Diff			12-18L	0	0	3
					18-24L	0	0	2							28.99	28.89	28.94	8	0.10	7.4			18-24L	0	0	0

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 23

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)	
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000		<3000
12-15Z		0	-16.7	-14.6	-16.8				sn	2					6	330	1222	8	340	1212	6	100				28.88	
15-18Z		0	-16.4	-16.3	-17.5									TR	4	50	1702	5	40	1659	5	65				28.87	
18-21Z		3	-13.8	-13.5	-16.4									6	100	1921	8	100	1920	6	120				28.88		
21-24Z		0	-13.8	-11.4	-14.6									5	170	2334	8	350	2325	5	100				28.90		
12 hr Max/Min				-11.4	-17.5																						
00-03Z		0	-13.5	-10.2	-14.1										5	290	239	7	40	231	5	90				28.91	
03-06Z		0	-15.0	-11.6	-15.4										4	150	414	5	210	410	5	12				28.94	
06-09Z		0	-16.3	-14.4	-16.3										6	40	702	9	70	650	5	12				28.95	
09-12Z		0	-18.8	-16.0	-19.1										3	50	921	5	50	920	5	80				28.97	
12 hr Max/Min				-10.2	-19.1																						
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg Sky	Low-est	Ceiling (hrs)						
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Cover	CIG	Time	<500	<1000	<3000	
		0	-10.2	-19.1	-14.7	00-06L	0	0	0	-19.1	-3.0	2	0	0	0.00	330	6	1222	70	9	650	5	12	00-06L	0	0	0
					06-12L	0	0	0							Altimeter			Total	Daily	Daily			06-12L	0	0	0	
					12-18L	0	0	0							Max	Min	Avg	Obs	Pres	Temp			12-18L	0	0	0	
					18-24L	0	0	0							28.97	28.87	28.91	Taken	Diff	Diff			18-24L	0	0	0	
																		0	0.10	8.9							

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 24

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	0	0	-19.2	-18.5	-21.4										4	360	1218	5	350	1350	4				28.96	
15-18Z	330	4	-15.7	-15.7	-19.1										7	340	1736	10	340	1735	2				28.95	
18-21Z	320	9	-16.4	-15.6	-16.7										10	320	2050	13	320	2048	2				28.92	
21-24Z	330	13	-15.1	-14.9	-17.0										15	340	2340	20	330	2334	1				28.88	
12 hr Max/Min			-14.9	-21.4																						
00-03Z	330	13	-14.2	-14.1	-14.8										15	330	243	22	330	141	1				28.84	
03-06Z	330	10	-14.9	-14.0	-15.0										17	330	315	23	350	415	3				28.81	
06-09Z	330	12	-16.4	-15.1	-16.6										16	310	842	21	340	732	4				28.79	
09-12Z	330	14	-17.4	-16.0	-17.7										16	320	1025	24	320	1028	6				28.78	
12 hr Max/Min			-14.0	-17.7																						

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

Avg Wind Dir	Max Spd	Min Temp	Avg Temp	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)						
				Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br		bs	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000		
329	9	-14.0	-21.4	-17.7	00-06L	0	0	0	-37.0	-34.0	0	0	0	0.00	330	17	315	320	24	1028	3		00-06L	0	0	0	
					06-12L	0	0	0							Altimeter			Total Obs	Daily Pres	Daily Temp			06-12L	0	0	0	
					12-18L	0	0	0							Max	Min	Avg	28.96	28.78	28.87	8	0.18	7.4	12-18L	0	0	0
					18-24L	0	0	0															18-24L	0	0	0	



## McMurdo Station Daily Observation Worksheet

Date: 25

Time	Winds			3 hr Temp		Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	330	10	-19.0	-17.7	-19.0										17	330	1221	23	340	1214	3				28.77	
15-18Z	310	10	-18.8	-18.4	-19.4										14	330	1623	19	330	1623	5	180			28.77	
18-21Z	330	6	-16.6	-16.5	-18.7										12	310	2006	16	310	2006	6	180			28.78	
21-24Z	250	3	-14.1	-13.9	-16.7										11	320	2213	15	310	2148	5	180			28.80	
12 hr Max/Min				-13.9	-19.4																					
00-03Z		0	-14.5	-10.9	-14.5										5	180	246	6	170	246	5	180			28.82	
03-06Z	310	5	-15.3	-11.8	-15.6										8	300	404	10	320	546	6	50			28.83	
06-09Z	330	7	-15.6	-15.5	-15.8										10	320	826	14	320	823	7	50			28.87	
09-12Z	0	0	-16.0	-15.6	-16.4										10	340	938	13	340	937	7	50			28.91	
12 hr Max/Min				-10.9	-16.4																					

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

Avg Wind Dir	Max Spd	Min Temp	Avg Temp	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
				Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br		bs	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000	
318	5	-10.9	-19.4	-15.2	00-06L	0	0	0	-33.0	-27.0	0	0	0	0.00	330	17	1221	340	23	1214	6	50	00-06L	0	0	0
				06-12L	0	0	0					Altimeter			Total Obs Taken	Daily Pres Diff	Daily Temp Diff									
				12-18L	0	0	0					28.91	28.77	28.82	7	0.14	8.5	06-12L	0	0	0					
				18-24L	0	0	0											12-18L	0	0	0					
																			18-24L	0	0	0				





## McMurdo Station Daily Observation Worksheet

Date: 26

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)	
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000		<3000
12-15Z	0	0	-15.9	-15.3	-16.8										3	150	1313	4	50	1431	8	40				28.94	
15-18Z	40	6	-13.0	-12.9	-15.5										10	30	1704	12	30	1742	8	35				29.00	
18-21Z	100	14	-17.0	-12.4	-19.2				sn		1				20	130	2042	25	130	2042	8	30			1	29.09	
21-24Z	60	13	-17.0	-16.9	-18.1				sn		3				18	50	2245	24	90	2058	8	30			3	29.15	
12 hr Max/Min			-12.4	-19.2																							
00-03Z	50	11	-17.8	-15.5	-17.9				sn		3				14	80	123	19	80	33	8	15				3	29.20
03-06Z	110	9	-16.5	-16.5	-17.9										14	60	301	18	120	523	7	50				2	29.24
06-09Z	100	10	-18.9	-16.0	-19.0										14	50	828	22	140	1706	7	60					29.28
09-12Z	60	10	-18.2	-17.1	-19.1										17	110	939	23	100	924	6	60				1	29.28
12 hr Max/Min			-15.5	-19.1																							
Avg Wind		Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt		
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd			Time	Time	<500		<1000	<3000
76	9	-12.4	-19.2	-15.8	00-06L	0	0	0	-35.0	-31.0	7	0	0	0.00	130	20	2042	130	25	2042	8	15	00-06L	0	0	0	
					06-12L	0	0	0							Altimeter			Total Obs Taken	Daily Pres Diff	Daily Temp Diff			06-12L	0	0	4	
					12-18L	0	0	0							Max	Min	Avg						12-18L	0	0	5	
					18-24L	0	0	0							29.28	28.94	29.15						18-24L	0	0	1	
																		8	0.34	6.8							

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 27

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	60	8	-16.8	-18.3	-18.3										11	80	1228	15	80	1227	3				29.26	
15-18Z			0	-14.1	-13.7	-17.3									13	40	1546	15	40	1545	3				29.24	
18-21Z	340	6	-15.6	-13.2	-16.3										9	330	2045	12	330	2044	3				29.21	
21-24Z		3	-15.2	-14.8	-16.7										11	340	2258	14	330	2258	2				29.16	
12 hr Max/Min				-13.2	-18.3																					
00-03Z			0	-14.2	-13.0	-15.3									6	300	1	7	320	13	4				29.09	
03-06Z	300	6	-16.8	-14.7	-16.9										7	320	429	10	300	332	6	15			3 29.04	
06-09Z			0	-15.8	-14.8	-16.5									5	290	633	6	270	646	1				1 28.99	
09-12Z			0	-19.2	-15.9	-19.5				IC	2				T	3	60	1110	3	110	1127	1			28.95	
12 hr Max/Min				-13.0	-19.5																					
Avg Wind		Max	Min	Avg		Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg Sky	Low-est	Ceiling (hrs)			
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time	Cover	CIG	Time	<500	<1000	<3000
359	3	-13.0	-19.5	-16.3	00-06L	0	0	0	-34.0	-29.0	2	0	0	0.00	40	13	1546	80	15	1227	3	15	00-06L	0	0	0
					06-12L	0	0	0							Altimeter			Total	Daily	Daily			06-12L	0	0	0
					12-18L	0	0	0							Max	Min	Avg	Obs	Pres	Temp			12-18L	0	0	3
					18-24L	0	0	0							29.26	28.95	29.12	Taken	Diff	Diff			18-24L	0	0	1
																		3	0.31	6.5						

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 28

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	0	0	-19.8	-18.5	-20.7										2	170	1450	2	170	1450	1				28.90	
15-18Z	0	0	-16.2	-16.0	-21.7										2	30	1629	3	30	1621	1				28.88	
18-21Z	0	0	-15.3	-14.0	-17.3										4	310	1946	4	290	1949	3				28.87	
21-24Z	0	0	-13.4	-13.1	-15.5										2	160	2340	2	220	2348	2				28.87	
12 hr Max/Min				-13.1	-21.7																					
00-03Z	0	0	-12.9	-11.1	-14.4										3	170	249	3	180	249	2				28.89	
03-06Z	0	0	-13.2	-11.2	-14.7										3	180	517	4	180	325	1				28.92	
06-09Z	0	0	-16.0	-12.8	-16.0										3	170	803	4	180	731	1				28.97	
09-12Z	350	3	-18.7	-15.2	-18.8										3	360	1148	4	10	1148	1				29.02	
12 hr Max/Min				-11.1	-18.8																					

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

Time	Avg Wind		Max Temp	Min Temp	Avg Temp	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)				
	Dir	Spd				Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br		bs	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000
00-06L			-11.1	-21.7	-16.4	0	0	0	-22.0	-8.0	0	0	0	0.00	310	4	1946	290	4	1949	2			00-06L	0	0	0
06-12L						0	0	0							Altimeter			Total Obs	Daily Pres	Daily Temp			06-12L	0	0	0	
12-18L						0	0	0							Max	Min	Avg	Taken	Diff	Diff			12-18L	0	0	0	
18-24L						0	0	0							29.02	28.87	28.92	8	0.15	10.6			18-24L	0	0	0	



## McMurdo Station Daily Observation Worksheet

Date: 29

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)	
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000		<3000
12-15Z			-19.4	-18.1	-20.6										3	360	1409	4	360	1337	6	90				29.08	
15-18Z			-19.6	-19.2	-21.3										4	180	1726	5	180	1726	7	80				29.14	
18-21Z	60	10	-18.1	-17.9	-20.6										11	60	2050	15	60	2050	7	70				29.19	
21-24Z	50	12	-16.6	-16.2	-18.2										14	50	2126	18	50	2125	7	70				29.22	
12 hr Max/Min			-16.2	-21.3																							
00-03Z	50	8	-16.1	-15.7	-17.7										14	30	211	18	30	145	6	70				29.25	
03-06Z	130	8	-14.8	-14.4	-16.0										13	40	350	17	50	350	6	150				29.27	
06-09Z	140	7	-17.0	-16.1	-17.8										12	140	833	15	110	558	6	150				29.28	
09-12Z	30	8	-19.2	-17.6	-20.3										13	70	1012	16	80	959	7	120				29.31	
12 hr Max/Min			-14.4	-20.3																							
Avg Wind	Max	Min	Avg	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)						
Dir	Spd	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br		bs	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000		
70	9	-14.4	-21.3	-17.9	00-06L	0	0	0	-36.0	-33.0	0	0	0	0.00	50	14	2126	50	18	2125	7	70	00-06L	0	0	0	
					06-12L	0	0	0							Altimeter			Total Obs Taken	Daily Pres Diff	Daily Temp Diff				06-12L	0	0	0
					12-18L	0	0	0							Max	Min	Avg							12-18L	0	0	0
					18-24L	0	0	0							29.31	29.08	29.22	6	0.23	6.9				18-24L	0	0	0

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.





## McMurdo Station Daily Observation Worksheet

Date: 30

Time	Winds		3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)	
	Dir	Spd	Temp	Max	Min	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000		<3000
12-15Z	50	7	-19.2	-18.1	-19.7										12	30	1423	15	30	1422	7	120				29.33	
15-18Z		0	-17.2	-16.9	-18.9				SN	2				T	9	60	1521	12	60	1520	8	70				29.33	
18-21Z		5	-18.1	-17.1	-19.8				SN	3				T	10	330	2031	14	350	2025	8	70				29.34	
21-24Z		4	-16.8	-16.7	-18.1				SN	3				T	10	330	2233	13	340	2233	8	70				29.34	
12 hr Max/Min				-16.7	-19.8																						
00-03Z		0	-14.3	-13.5	-16.7				SN	3				T	7	300	113	9	320	30	8	70				29.31	
03-06Z	60	6	-15.4	-13.4	-16.6				SN	2				T	9	60	529	12	60	525	7	150				29.28	
06-09Z	50	14	-18.9	-14.8	-19.2				1 SN	1				T	15	50	824	18	50	847	7	150				29.29	
09-12Z	50	14	-19.8	-19.2	-20.1				3 SN	3				T	16	40	1029	21	50	1034	7	150				29.29	
12 hr Max/Min				-13.4	-20.1																						
Avg Wind		Max	Min	Avg		Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)				
Dir	Spd	Temp	Temp	Temp	Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br	bs	Total	Dir	Spd	Time	Dir	Spd	Time			Time	<500	<1000		<3000
51	6	-13.4	-20.1	-16.8	00-06L	0	0	0	-41.0	-42.0	17	0	0	0.00	40	16	1029	50	21	1034	8	70	00-06L	0	0	0	
					06-12L	0	0	0						Altimeter			Total Obs	Daily Pres	Daily Temp								
					12-18L	0	0	0						Max	Min	Avg	29.34	29.28	29.31	4	0.06	6.7	06-12L	0	0	0	
					18-24L	0	0	4									Taken	Diff	Diff								
																								18-24L	0	0	0

Note 1: Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

Note 2: When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

Note 3: To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.



## McMurdo Station Daily Observation Worksheet

Date: 31

Time	Winds			3 hr Temp			Visibility (hrs)			Wx and Duration (Note 2)					Pcpn Amt	Max Wind (Note 3)			Max Gust (Note 3)			Avg Sky Cover	Low-est CIG	Ceiling (hrs)			Alt (in)
	Dir	Spd	Temp	Max	Min	Temp	<1600	<4800	<9999	sn/sg/ic	hrs	fg/br	hrs	bs		hrs	Spd	Dir	Time	Spd	Dir			Time	<500	<1000	
12-15Z	50	15	-20.2	-19.9	-20.8				1 SN	1					T	16	50	1450	19	50	1449	7	150				29.27
15-18Z	50	11	-18.9	-18.8	-20.9				1 SN	1					T	15	40	1511	17	50	1609	7	150				29.26
18-21Z	30	12	-17.6	-17.0	-18.8				1 SN	2					T	12	30	2048	15	40	2048	7	150				29.24
21-24Z	70	6	-15.7	-15.5	-17.6											16	40	2147	19	50	2146	7	150				29.23
<b>12 hr Max/Min</b>				<b>-15.5</b>	<b>-20.9</b>																						
00-03Z	50	6	-14.9	-14.9	-15.8				SN	1					T	14	40	112	18	50	112	8	150				29.21
03-06Z	80	11	-14.6	-14.5	-15.0				/SN	1					T	11	110	510	17	130	444	8	80				29.19
06-09Z	100	9	-14.5	-14.0	-14.6											13	130	731	20	110	701	6	150				29.17
09-12Z	130	14	-14.3	-14.2	-14.7											20	130	1133	31	140	1051	6	150				29.14
<b>12 hr Max/Min</b>				<b>-14.0</b>	<b>-15.8</b>																						

**Note 1:** Color coding. Green headings indicate blocks the Weather Observer must complete. The remainder are calculated/completed by MS Excel.

**Note 2:** When inputting WX and Duration entries, be sure to precede each wx type by a "/", ie. /sn. Duration should be a whole number, not fractions of an hour.

**Note 3:** To facilitate MS Excel, the order of entry for Max Wind and Max Gust is changed from conventional. The order is: Spd, Dir, and Time.

Avg Wind Dir	Max Spd	Min Temp	Avg Temp	Visibility (hrs)			Min Wind Chill		WX and Duration			Pcpn Total	Max Wind			Max Gust			Avg Sky Cover	Low-est CIG	Ceiling (hrs)					
				Time	<1600	<4800	<9999	C	F	sn/sg/ic	fg/br		bs	Dir	Spd	Time	Dir	Spd			Time	Time	<500	<1000	<3000	
70	11	-14.0	-20.9	-17.5	00-06L	0	0	2	-40.0	-40.0	6	0	0	0.00	130	20	1133	140	31	1051	7	80	00-06L	0	0	0
				06-12L	0	0	1					Altimeter			Total Obs	Daily Pres	Daily Temp									
				12-18L	0	0	0					29.27	29.14	29.21	8	0.13	6.9									
				18-24L	0	0	0																			



	Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7		Day 8		Day 9		Day 10		Day 11		Day 12		Day 13		Day 14		Day 15	
12-15Z					0	0	0	0	0	0	120	9	0	0	60	16	130	8	130	21	100	11	130	14	50	13	70	3	50	16
15-18Z	100	13	20	11	320	5	0	0	290	5	30	15	0	0	110	9	110	13	60	9	70	12	130	19	50	14	40	15	100	14
18-21Z					0	0	0	0	0	0	50	13	0	0	90	4	50	16	130	12	150	18	100	15	120	24	30	19	50	13
21-24Z	30	16	30	6	0	0	0	0	290	5	50	14	40	5	50	5	90	12	130	8	120	10	70	14	30	15	70	9	50	14
00-03Z					0	0	330	5	250	8	120	8	90	11	130	6	70	15	150	21	110	14	120	17	50	21	80	7	40	16
03-06Z	40	18	0	0	300	5	0	0	40	3	50	13	130	22	0	0	0	0	140	24	110	14	80	13	50	7	100	10	40	14
06-09Z			0	0	310	5	0	0	100	11	60	15	100	15	0	0	0	0	50	10	120	12	140	15		0	80	6	50	16
09-12Z	30	4	0	0	320	3	0	0	60	12	80	9	110	13	0	0	140	15	60	12	110	16	70	10	30	3	110	5	170	3
X*u / X*v					0	0	0	0	0	0	7.794	-4.5	0	0	13.86	8	6.128	-5.14	16.09	-13.5	10.83	-1.91	10.72	-9	9.959	8.356	2.819	1.026	12.26	10.28
X*u / X*v	12.8	-2.26	3.762	10.34	-3.21	3.83	0	0	-4.7	1.71	7.5	12.99	0	0	8.457	-3.08	12.22	-4.45	7.794	4.5	11.28	4.104	14.55	-12.2	10.72	8.999	9.642	11.49	13.79	-2.43
X*u / X*v					0	0	0	0	0	0	9.959	8.356	0	0	4	2E-16	12.26	10.28	9.193	-7.71	9	-15.6	14.77	-2.6	20.78	-12	9.5	16.45	9.959	8.356
X*u / X*v	8	13.86	3	5.196	0	0	0	0	-4.7	1.71	10.72	8.999	3.214	3.83	3.83	3.214	12	7E-16	6.128	-5.14	8.66	-5	13.16	4.788	7.5	12.99	8.457	3.078	10.72	8.999
X*u / X*v					0	0	-2.5	4.33	-7.52	-2.74	6.928	-4	11	7E-16	4.596	-3.86	14.1	5.13	10.5	-18.2	13.16	-4.79	14.72	-8.5	16.09	13.5	6.894	1.216	10.28	12.26
X*u / X*v	11.57	13.79	0	0	-4.33	2.5	0	0	1.928	2.298	9.959	8.356	16.85	-14.1	0	0	0	0	15.43	-18.4	13.16	-4.79	12.8	2.257	5.362	4.5	9.848	-1.74	8.999	10.72
X*u / X*v			0	0	-3.83	3.214	0	0	10.83	-1.91	12.99	7.5	14.77	-2.6	0	0	0	0	7.66	6.428	10.39	-6	9.642	-11.5	5.909	1.042	12.26	10.28		
X*u / X*v	2	3.464	0	0	-1.93	2.298	0	0	10.39	6	8.863	1.563	12.22	-4.45	0	0	9.642	-11.5	10.39	6	15.04	-5.47	9.397	3.42	1.5	2.598	4.698	-1.71	0.521	-2.95
Sum u/Sum v	34.37	28.85	6.762	15.53	-13.3	11.84	-2.5	4.33	6.239	7.072	74.72	39.26	58.06	-17.4	34.74	4.279	66.34	-5.66	83.18	-46	91.51	-39.4	99.77	-33.3	71.92	38.94	57.77	30.86	78.79	55.52
Arctan	49.99		23.53		-48.3		-30		41.42		62.28		106.6		82.98		94.88		118.9		113.3		108.5		61.57		61.89		54.83	
<b>Direction</b>	49.99		23.53		311.7		330		41.42		62.28		106.6		82.98		94.88		118.9		113.3		108.5		61.57		61.89		54.83	
<b>Magnitude</b>	12.75		3		2		1		6		12		8		5		10		15		9:00		15		12		9		13	

## Avg Wind

		sin	cos
1	X*u / X*v	9.766	8.197
2	X*u / X*v	1.357	3.117
3	X*u / X*v	-1.681	1.496
4	X*u / X*v	-0.313	0.541
5	X*u / X*v	3.639	4.124
6	X*u / X*v	10.623	5.582
7	X*u / X*v	7.904	-2.364
8	X*u / X*v	4.962	0.611
9	X*u / X*v	9.839	-0.840
10	X*u / X*v	12.799	-7.077
11	X*u / X*v	12.283	-5.294
12	X*u / X*v	13.871	-4.635
13	X*u / X*v	10.662	5.773
14	X*u / X*v	8.159	4.359
15	X*u / X*v	10.831	7.632
16	X*u / X*v	2.527	4.022
17	X*u / X*v	4.981	-0.434
18	X*u / X*v	6.573	4.986
19	X*u / X*v	4.101	3.278
20	X*u / X*v	7.871	0.247
21	X*u / X*v	10.997	4.480
22	X*u / X*v	-0.798	1.557
23	X*u / X*v		
24	X*u / X*v	-4.856	8.019
25	X*u / X*v	-3.438	3.801
26	X*u / X*v	8.857	2.193
27	X*u / X*v	-0.073	2.874
28	X*u / X*v	-0.065	0.369
29	X*u / X*v	8.285	3.064
30	X*u / X*v	4.889	3.894
31	X*u / X*v	9.860	3.608
	Sum u/Sum v	174.413	67.183
	Arctan	68.933	
	<b>Direction</b>	68.9	
	<b>Magnitude</b>	7.563978	

Station:  
NZCM

Monthly Climatology / Page 1

Month:  
Oct 2004

Date	Temp (C)			Visibility (hrs)															WX and Duration				Pcpn Amt	Avg Wind		Max Wind		Max Gust	
	Max	Min	Avg	< 1600				< 4800				< 9999				sn/sg/ic	fg/br	bs	Total	Spd	Dir	Spd		Dir					
	00-06L	06-12L	12-18L	18-24L	Total	00-06L	06-12L	12-18L	18-24L	Total	00-06L	06-12L	12-18L	18-24L	Total														
1	-26.4	-35.9	-31.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13	50	26	30	31	
2	-29.1	-37.9	-33.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3	24	24	30	30	
3	-26.2	-39.5	-32.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2	312	7	160	12	
4	-26.3	-35.3	-30.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	330	9	340	7	
5	-11.8	-37.7	-24.8	0.00	0.00	3.00	4.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00	2.00	9.00	0.13	6	41	17	80	30	
6	-13.3	-19.8	-16.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12	62	24	20	30	
7	-13.4	-24.9	-19.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	8	107	25	130	37	
8	-18.5	-26.8	-22.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	83	21	50	26	
9	-8.9	-20.9	-14.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10	95	24	50	29	
10	-9.4	-15.5	-12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	3.00	1.00	4.00	0.00	0.00	5.00	5.00	0.00	15	119	27	170	34
11	-6.7	-14.2	-10.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13	113	28	130	43	
12	-8.8	-14.7	-11.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15	108	29	160	44	
13	-9.8	-18.6	-14.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12	62	28	150	36	
14	-14.5	-22.8	-18.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9	62	23	30	27	
15	-17.5	-22.3	-19.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13	55	18	50	23	
16	-12.8	-25.4	-19.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	32	14	80	18	
17	-11.2	-23.0	-17.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00	7.00	0.00	5	95	20	120	27
18	-11.2	-21.0	-16.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.50	0.00	8	53	21	50	25	
19	-10.5	-18.6	-14.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	4.00	6.00	3.00	9.00	0.00	5	51	11	30	16
20	-9.2	-15.6	-12.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8	88	20	140	29	
21	-9.6	-15.5	-12.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12	68	25	150	36	
22	-11.3	-18.7	-15.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	5.00	2.00	7.00	19.00	0.00	0.00	19.00	0.00	2	333	13	340	19
23	-10.2	-19.1	-14.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0		6	330	9	
24	-14.0	-21.4	-17.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9	329	17	330	24	
25	-10.9	-19.4	-15.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	318	17	330	23	
26	-12.4	-19.2	-15.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00	0.00	7.00	0.00	9	76	20	130	25	
27	-13.0	-19.5	-16.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	3	359	13	40	15	
28	-11.1	-21.7	-16.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	350	4	310	4	
29	-14.4	-21.3	-17.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9	70	14	50	18	
30	-13.4	-20.1	-16.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	4.00	17.00	0.00	0.00	17.00	0.00	6	51	16	40	21	
31	-14.0	-20.9	-17.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	0.00	3.00	6.00	0.00	0.00	6.00	0.00	11	70	20	130	31

Monthly Statistics

Temp (C)	Visibility (hrs)															WX and Duration	Pcpn Total	Avg Wind		Max Wind		Max Gust		
	Max	Min	Avg	< 1600				< 4800				< 9999						Dir	Spd	Dir	Spd			
-6.7	-39.5	-18.3	0.0	0.0	3.0	4.0	0.0	0.0	2.0	2.0	2.0	1.0	12.0	8.0	66.5	10.0	8.0	84.5	0.13	69	8	160	29	44

Total Hrs =or< 1600:	7.0	Total Hrs =or< 4800:	4.0	Total Hrs < 9999:	23.0
Total Days =or< 1600:	1	Total Days =or< 4800:	3	Total Days < 9999:	6
% Hrs =or< 1600:	0.0	% Hrs =or< 4800:	0.0	% Hrs < 9999:	0.0
% Days =or< 1600:	0.0	% Days =or< 4800:	0.1	% Days < 9999:	0.2

Total Hrs	sn/sg/ic:	66.5
	fg/br:	10.0
	fg:	8.0
Total Days	sn/sg/ic:	9
	fg/br:	2
	fg:	3

- N
- NE
- E
- SE
- S
- SW
- W
- NW



Station:  
NZCM

Monthly Climatology / Page 2

Month:  
Oct 2004

Date	Avg Sky Cover	Low-est CIG	Ceiling (hrs)															Altimeter (in)			Total Obs Taken	Daily Pres Diff	Daily Temp Diff	Min Wind Chill	Remarks	
			< 500					< 1000					< 3000					Max	Min	Avg						
			00-06L	06-12L	12-18L	18-24L	Total	00-06L	06-12L	12-18L	18-24L	Total	00-06L	06-12L	12-18L	18-24L	Total									
1	4	150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.58	29.48	29.52	4	0.10	9.5	-60.0	
2	5	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.60	29.50	29.54	5	0.10	8.8	-56.0	
3	3	90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.49	29.36	29.41	8	0.13	13.3	-42.0	
4	3	150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.34	29.22	29.29	8	0.12	9.0	-33.0	
5	6	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	4.00	7.00	29.34	29.21	29.25	8	0.13	25.9	-46.0		
6	2	150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.43	29.25	29.38	8	0.18	6.5	-47.0	
7	2	150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.17	28.98	29.04	8	0.19	11.5	-43.0	
8	5	70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.16	29.07	29.13	8	0.09	8.3	-50.0	
9	7	70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.20	29.08	29.14	8	0.12	12.0	-36.0	
10	7	60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.07	28.96	29.01	8	0.11	6.1	-37.0	
11	5	70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.03	28.90	28.96	8	0.13	7.5	-35.0	
12	5	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.31	29.07	29.20	8	0.24	5.9	-32.0	
13	4	80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.29	29.11	29.19	7	0.18	8.8	-36.0	
14	1		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.24	29.12	29.19	8	0.12	8.3	-44.0	
15	4	150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.33	29.20	29.29	8	0.13	4.8	-44.0	
16	2	150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.17	29.12	29.14	8	0.05	12.6	-42.0	
17	4	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	29.23	29.19	29.22	8	0.04	11.8	-30.0	
18	4	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.23	29.08	29.16	8	0.15	9.8	-29.0	
19	7	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	5.00	9.00	29.04	28.81	28.90	6	0.23	8.1	-28.0		
20	6	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.88	28.76	28.82	8	0.12	6.4	-34.0	
21	5	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.01	28.97	28.99	8	0.04	5.9	-33.0	
22	7	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	3.00	28.99	28.89	28.94	8	0.10	7.4			
23	5	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.97	28.87	28.91	0	0.10	8.9	-19.1	
24	3		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.96	28.78	28.87	8	0.18	7.4	-37.0	
25	6	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.91	28.77	28.82	7	0.14	8.5	-33.0	
26	8	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	5.00	1.00	10.00	29.28	28.94	29.15	8	0.34	6.8	-35.0		
27	3	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	1.00	4.00	29.26	28.95	29.12	3	0.31	6.5	-34.0		
28	2		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.02	28.87	28.92	8	0.15	10.6	-22.0	
29	7	70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.31	29.08	29.22	6	0.23	6.9	-36.0	
30	8	70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.34	29.28	29.31	4	0.06	6.7	-41.0	
31	7	80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.27	29.14	29.21	8	0.13	6.9	-40.0	

Monthly Statistics

Avg Sky Cover	Ceiling (hrs)															Total Obs Taken	Min Wind Chill																											
	< 500					< 1000					< 3000							Altimeter																										
	00-06L	06-12L	12-18L	18-24L	Total	00-06L	06-12L	12-18L	18-24L	Total	00-06L	06-12L	12-18L	18-24L	Total	Max	Min	Avg																										
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	19.0	8.0	29.60	28.76	29.14	218	-60.0																									
Total Hrs =or< 500: 0.0															Total Hrs =or< 1000: 0.0															Total Hrs =or< 3000: 35.0														
Total Days =or< 500: 0															Total Days =or< 1000: 0															Total Days =or< 3000: 6														
% Hrs =or< 500: 0.0															% Hrs =or< 1000: 0.0															% Hrs =or< 3000: 0.0														
% Days =or< 500: 0.0															% Days =or< 1000: 0.0															% Days =or< 3000: 0.2														
																														Total Days: 31														