

**ANNEX X TO  
MARS CORRECT: CRITIQUE OFF ALL NASA MARS WEATHER DATA  
MSL Year 3-4 Winter Weather Data (LS 90 to 180, Sols 1,881 to 2,060)**

This Annex reveals all Mars Science Laboratory (MSL) weather data for MSL's Mars Year 3 autumn. It shows what was published by the Rover Environmental Monitoring Station (REMS) Team and JPL. It also reveals what the Roffman Team sees as weather anomalies, and how the REMS Team and JPL altered their data after we color-highlighted what was off the expected temperature and pressure curves. Note: Some sources refer to the first year that MSL was on Mars as Year 0. For those using that system sols 1,881 to 2,060 are Years 2 to 3.

On Table 1 column subjects and color codings are as follows (Note: JPL calls the first year of MSL on Mars "Year 0," the second year Year 1, and the third year "Year 2"):

<p><b>Column A (Sol).</b> The Martian day is about 39 minutes longer than the terrestrial day.</p>	<p><b>Column H shows temperature range divided by 40.</b> This allows us to compare terrestrial deserts with Gale Crater, Mars. How much cooling occurs at night is related to the density of the atmosphere. Here we see the ratio of cooling on a Mars sol to the typical 40 °C cooling figure for Earth's deserts shown with a green background when that ratio is under 1.5. For MSL Year 1 when we altered the devisor from 40 °C to 57 °C then 88 of the ratios were altered to 1 or less than 1, meaning that Martian air pressure is indeed likely much higher than NASA claims.</p>	<p><b>Column M shows the decrease in temperature from the ground to the air at nights.</b> If the data were valid we would expect similar heating or cooling to occur over the set distance from ground to boom. A quick survey of the data immediately shows that this was not found. In column L we see a variation in heating between 0 °C and at least 15 °C with a 54 °C anomaly on Sol 1,070. For nightttime cooling any variation from 11°C to 19°C is shown with a medium blue background. More than that is shown with a dark blue background.</p>
<p><b>Column B is solar longitude (Ls).</b> MSL is in the Southern Hemisphere on Mars. The landing was at Ls 150 (winter). Ls 180 begins the spring. Ls 270 starts summer, Ls 0 starts the fall. Ls 90 starts the winter.</p>	<p><b>Column I shows maximum ground temp.</b> As with terrestrial deserts, the ground on Mars heats more during the day than the air does, and it cools more at night than the air does. In Column K when the maximum ground temperature is given by REMS is above 0°C it is shown with a red background.</p>	<p><b>Column N shows the pressure for the same Ls in MSL Year 1.</b></p>
<p><b>Column C shows the pressure reported by the REMS Team.</b></p>	<p><b>Column J shows the minimum ground temperature.</b> When it is -90 °C or colder the background is in purple. <b>The ground temperatures are not very precise.</b> The requirement was to measure ground brightness temperature over the range from 150 to 300 K with <a href="#">a resolution of 2 K and an accuracy of 10 K.</a></p>	<p><b>Column O shows the absolute value of the change in pressure in Pascals from the same Ls in the previous year (Column [M] - [C]).</b></p>
<p><b>Column D shows the date on Earth.</b></p>	<p><b>Column K. Drop in ground temperature from day to night.</b></p>	<p><b>Column P shows the original pressure for the same Ls in MSL Year 1 before JPL revised their data.</b></p>
<p><b>Column E shows the maximum air temperature.</b> With respect to the freezing point, from 0° C at 1 atm pressure it will increase up to 0.01° C at 0.006 atm (which is about the average pressure on Mars as given by NASA). This is the triple point of water. At pressures below this, water will never be liquid. It will change directly between solid and gas phase (sublimation). The temperature for this phase change, the sublimation point, will decrease as the pressure is further decreased</p>	<p><b>Column L shows the increase in temperature from the mast 1.5 meters above the ground down to the ground during the daylight hours.</b> In column N anytime there is an increase in temperature of 11 °C or more this in indicated with a dark blue background.</p>	<p><b>Column Q shows the Ls during Year 1.</b></p>
<p><b>Column F shows minimum air temperature.</b></p>		<p><b>Column R shows the UV for the sol in Year 2.</b></p>
<p><b>Column G shows the air temperature range for each sol.</b> On Earth temperatures can vary by 40 °C in deserts. In column G where the range is 59 °C or less yellow background coloring points that out. The National Park Service claims <b>the world record in a diurnal temperature variation is 102 °F (57 °C)</b> (from 46 °F (8 °C) to −56 °F (−49 °C)) in <a href="#">Browning, Montana</a> (elevation 4,377 feet/1,334 meters) on January 23 to 24, 1916. <b>There were 2 days in Montana where the temperature changed by 57 °C.</b></p>		<p><b>Column S shows the UV for the sol in Year 1. All sols in MSL Year 1 and Year 2 have opacity listed as “sunny” which seems dubious.</b></p>
		<p><b>Column T shows comments, if any</b></p>

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/  COMMENTS	MSL Altitude meters below areoid
						YELLOW IF <60 °C	GREEN IF<1.5	RED IF > 0 °C	PURPLE = >-90°C OR COLDER	YELLOW NUMBERS = - 80 to -89 °C,  red background = -90°C or colder drop	BLUE = >10°C	PURPLE =>10°C		YELLOW = > 7 Pa)						
1881	90	832	11/20/2017	-29	-79	50	1.25	-8	-83	75	21	-4	851	-19	90	N/A	M	M. Year 1 was M.	1212 was a last day of fall. 1881 is a first day of winter. This seasonal chart starts with a comparison of Sol 1213.	
1882	90	831	11/21/2017	-31	-78	47	1.175	-7	-83	76	24	-5	850	-19	90	N/A	M	M. Year 1 was M.	(1214)	
1883	91	830	11/22/2017	-28	-78	50	1.25	-8	-82	74	20	-4	848	-18	91	N/A	M	H. Year 1 was M.	(1215)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/ COMMENTS	MSL Altitude meters below areoid
1884	91	829	11/23/2017	-29	-79	50	1.25	-8	-83	75	21	-4	847	-18	91	N/A	M	M. Year 1 was H.	(1216)	
1885	91	827	11/24/2017	-30	-79	49	1.225	-8	-83	75	22	-4	846	-19	92	N/A	M	M. Year 1 was H.	(1217)	
1886	92	826	11/25/2017	-27	-79	52	1.3	-8	-83	75	19	-4	845	-19	92	N/A	M	M. Year 1 was M.	(1218)	
1887	92	824	11/26/2017	-26	-79	53	1.325	-9	-83	74	17	-4	844	-20	93	N/A	M	M. Year 1 was M.	(1219)	
1888	93	823	11/27/2017	-25	-79	54	1.35	-9	-86	77	16	-7	842	-19	93	N/A	H	M. Year 1 was H.	(1220)	
1889	93	822	11/29/2017	-28	-80	52	1.3	-7	-85	78	21	-4	847	-25	93	N/A	H	M. Year 1 was M.	(1221)	
1890	94	821	11/30/2017	-28	-79	51	1.275	-9	-85	76	19	-6	840	-19	94	N/A	H	M. Year 1 was M.	(1222)	
1891	94	819	12/1/2017	-25	-80	55	1.375	-6	-86	80	19	-6	839	-20	94	N/A	H	M. Year 1 was M.	(1223)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/ COMMENTS	MSL Altitude meters below areoid
1892	95	817	12/2/2017	-29	-81	52	1.3	-11	-84	73	18	-3	837	-20	95	N/A	M	M. Year 1 was M.	(1224)	
1893	95	816	12/3/2017	-25	-79	54	1.35	-10	-82	72	15	-3	836	-20	95	N/A	M	M. Year 1 was M.	(1225)	
1894	96	815	12/4/2017	-28	-79	51	1.275	-6	-83	77	22	-4	835	-20	96	N/A	H	M. Year 1 was M.	(1226)	
1895	96	814	12/5/2017	-29	-78	49	1.225	-7	-87	80	22	-9	833	-19	96	N/A	H	M. Year 1 was M.	(1227)	
1896	96	812	12/6/2017	-23	-79	56	1.4	0	-87	87	23	-8	832	-20	97	N/A	H	M. Year 1 was H.	(1228)	
1897	97	811	12/7/2017	-27	-80	53	1.325	-1	-93	-92	26	-13	832	-21	97	N/A	H	M. Year 1 was M.	(1229)	
1899	97	810	12/8/2017	-27	-81	54	1.35	-1	-92	-91	26	-11	830	-20	98	N/A	H	M. Year 1 was M.	(1230)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE R EVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/ COMMENTS	MSL Altitude meters below areoid
1899	98	808	12/9/2017	-23	-81	58	1.45	-1	-91	-90	22	-10	828	-20	98	N/A	H	M. Year 1 was M.	(1231)	
1900	98	807	12/10/2017	-25	-81	56	1.4	0	-89	-89	25	-8	828	-21	98	N/A	H	M. Year 1 was M	(1232)	
1901	9	806	12/11/2017	-28	-81	53	1.325	-1	-90	-89	27	-9	827	-21	99	N/A	H	M. Year 1 was M	(1233)	
1902	99	804	12/12/2017	-27	-79	52	1.3	-9	-83	-74	18	-4	824	-20	99	N/A	M	M. Year 1 was H.	(1234)	
1903	100	803	12/13/2017	-25	-78	53	1.325	-10	-82	-72	15	-4	824	-21	100	N/A	M	M. Year 1 was H.	(1235)	
1904	100	801	12/14/2017	-27	-79	52	1.3	-11	-83	-72	16	-4	822	-21	100	N/A	M	M. Year 1 was H.	(1236)	
1905	101	800	12/15/2017	-22	-80	58	1.45	-8	-82	-74	14	-2	820	-20	101	N/A	H	M. Year 1 was H	(1237)	
1906	101	799	12/16/2017	-23	-79	56	1.4	-7	-85	-78	16	-6	819	-20	101	N/A	M	M. Year 1 was M.	(1238)	
1907	101	798	12/17/2017	-29	-79	50	1.25	-8	-85	-77	21	-6	818	-20	102	N/A	H	M. Year 1 was M	(1239)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/  COMMENTS	MSL Altitude meters below areoid
1908	102	796	12/18/2017	-28	-79	51	1.275	-7	-84	-77	21	-5	816	-20	102	N/A	H	M. Year 1 was M	(1240)	
1909	102	793	12/19/2017	-27	-80	53	1.325	-7	-88	-81	20	-8	816	-23	103	N/A	H	M. Year 1 was M.	(1241)	
1910	103	794	12/20/2017	-23	-80	57	1.425	-7	-85	-78	16	-5	815	-21	103	N/A	H	M. Year 1 was M.	(1242)	
1911	103	792	12/21/2017	-22	-79	57	1.425	-9	-84	-75	13	-5	814	-22	104	N/A	M	M. Year 1 was H.	(1243)	
1912	104	791	12/22/2017	-25	-80	55	1.375	-7	-82	-75	18	-2	812	-21	104	N/A	H	M. Year 1 was M.	(1244)	
1913	104	791	12/23/2017	-27	-79	52	1.3	-7	-81	-74	20	-2	811	-20	105	N/A	H	M. Year 1 was M.	(1245)	
1914	105	790	12/24/2017	-21	-78	57	1.425	-7	-82	-75	14	-4	810	-20	105	N/A	H	M. Year 1 was M.	(1246)	
1915	105	788	12/25/2017	-23	-78	55	1.375	-5	-82	-77	18	-4	809	-21	105	N/A	H	M. Year 1 was M.	(1247)	

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1916	106	787	12/26/2017	-22	-79	57	1.425	-6	-81	-75	16	-2	807	-20	106	N/A	H	M. Year 1 was M.	(1248)	
1917	106	786	12/27/2017	-19	-80	61	1.525	-6	-80	-74	13	0	806	-20	106	N/A	H	M. Year 1 was M.	(1249)	
1918	107	784	12/28/2017	-18	-77	59	1.475	-5	-83	-78	13	-6	804	-20	107	N/A	H	M. Year 1 was M.	(1250)	
1919	107	783	12/29/2017	-26	-77	51	1.275	-5	-82	-77	21	-5	803	-20	107	N/A	H	M. Year 1 was M.	(1251)	
1920	108	782	12/30/2017	-25	-77	52	1.3	-4	-81	-77	21	-4	802	-20	108	N/A	H	M. Year 1 was M.	(1252)	
1921	108	781	12/31/2017	-19	-78	59	1.475	-5	-81	-76	14	-3	800	-19	108	N/A	H	M. Year 1 was M.	(1253)	
1922	108	780	1/1/2018	-24	-79	55	1.375	-6	-82	-76	18	-3	799	-19	109	N/A	H	M. Year 1 was M.	(1254)	
1923	109	778	1/2/2018	-23	-77	54	1.35	-2	-83	-81	21	-6	798	-20	109	N/A	H	M. Year 1 was M.	(1255)	



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1924	109	777	1/3/2018	-21	-78	57	1.425	-2	-80	-78	19	-2	795	-18	110	N/A	H	M. Year 1 was M.	(1256)	
1925	110	777	1/5/2018	-19	-79	60	1.5	-1	-81	-80	198	-2	794	-17	110	N/A	H	M. Year 1 was M.	(1257)	
1926	110	775	1/6/2018	-24	-80	56	1.4	-2	-81	-79	22	-1	794	-19	111	N/A	H	M. Year 1 was M.	(1258)	
1927	111	774	1/7/2018	-24	-79	55	1.375	-1	-80	-79	23	-1	794	-20	111	N/A	H	M. Year 1 was M.	(1259)	
1928	111	773	1/8/2018	-24	-78	54	1.35	-2	-80	-78	22	-2	792	-19	112	N/A	H	M. Year 1 was M	(1260)	
1929	112	771	1/9/2018	-26	-79	53	1.325	-5	-84	-79	21	-5	793	-22	112	N/A	H	M. Year 1 was M	(1261)	
1930	112	770	1/10/2018	-24	-79	55	1.375	-2	-83	-81	22	-4	790	-20	112	N/A	H	M. Year 1 was M.	(1262)  Elevation on Sol 1930 = 4,149 meters below areoid	-4149
1931	113	770	1/11/2018	-22	-79	57	1.425	-11	-82	-71	11	-3	788	-18	113	N/A	H	M. Year 1 was M.	(1263)	

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1932	113	768	1/12/2018	-24	-79	55	1.375	-12	-81	-69	12	-2	787	-19	113	N/A	H	M. Year 1 was M.	(1264)	
1933	114	767	1/13/2018	-23	-78	55	1.375	-12	-83	-71	11	-5	787	-20	114	N/A	H	M. Year 1 was M.	(1265)	
1934	114	766	1/14/2018	-21	-79	58	1.45	-11	-80	-69	10	-1	787	-21	114	N/A	H	M. Year 1 was H.	(1266)	
1935	115	765	1/15/2018	-21	-80	59	1.475	-11	-80	-69	10	0	786	-21	115	N/A	H	M. Year 1 was M.	(1267)	
1936	115	764	1/16/2018	-20	-79	59	1.475	-11	-79	-68	9	0	784	-20	115	N/A	H	M. Year 1 was M.	(1268)	
1937	116	763	1/17/2018	-22	-80	58	1.45	-10	-80	-70	12	0	782	-19	116	N/A	H	M. Year 1 was M.	(1269)	
1938	116	762	1/18/2018	-24	-78	54	1.35	-12	-81	-69	12	-3	782	-20	116	N/A	H	M. Year 1 was M.	(1270)	
1940	117	759	1/20/2018	-19	-77	58	1.45	-2	-82	-80	17	-5	780	-21	117	N/A	H	M. Year 1 was H.	(1272)	

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1941	117	758	1/21/2018	-20	-77	57	1.425	-2	-80	-78	18	-3	778	-20	118	N/A	H	M. Year 1 was M.	(1273)	
1942	118	757	1/22/2018	-27	-78	51	1.275	-1	-79	-78	26	-1	777	-20	118	N/A	H	M. Year 1 was M.	(1274)	
1943	118	756	1/23/2018	-28	-78	50	1.25	-6	-87	-81	22	-9	775	-19	119	N/A	H	M. Year 1 was M.	(1275)	
1944	119	755	1/24/2018	-21	-80	59	1.475	-5	-86	-81	16	-6	774	-19	119	N/A	H	L changed to M. Year 1 was M.	(1276)  Elevation on Sol 1944 = 4,147 meters below areoid	-4,147
1945	119	751	1/25/2018	-22	-78	56	1.4	0	-89	-89	22	-11	774	-23	120	N/A	M	H. Year 1 was L changed to M.	(1277)	
1946	120	753	1/26/2018	-20	-79	59	1.475	-1	-89	-88	19	-10	778	-25	120	N/A	H	M. Year 1 was M.	(1278)	

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1947	120	751	1/27/2018	-19	-78	59	1.475	-6	-86	-80	13	-8	772	-21	121	N/A	M	H. Year 1 was L changed to M.	(1279)	
1948	121	752	1/28/2018	-18	-78	60	1.5	-6	-84	-78	12	-6	771	-19	121	N/A	M	H. Year 1 was L changed to M.	(1280)	
1949	121	751	1/29/2018	-20	-78	58	1.45	1	-84	-85	21	-6	769	-18	122	N/A	M	H. Year 1 was L changed to M.	(1281)	
1950	122	750	1/30/2018	-15	-79	64	1.6	-5	-84	-79	10	-5	768	-18	122	N/A	H	M. Year 1 was M.	(1282)	
1951	122	749	1/31/2018	-23	-77	54	1.35	-4	-84	-80	19	-7	768	-19	123	N/A	H	H. Year 1 was L changed to M.	(1283)	
1952	123	748	2/1/2018	-25	-80	55	1.375	-3	-83	-80	22	-3	767	-19	123	N/A	H	M. Year 1 was M.	(1284)	
1953	123	747	2/2/2018	-22	-78	56	1.4	-4	-82	-78	18	-4	766	-19	123	N/A	H	M. Year 1 was M.	(1285)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/  COMMENTS	MSL Altitude meters below areoid
1954	124	745	2/3/2018	-17	-77	60	1.5	-3	-84	-81	14	-7	765	-20	124	N/A	H	M. Year 1 was M.	(1286)	
1955	124	745	2/4/2018	-21	-77	56	1.4	-4	-83	-79	17	-6	764	-19	124	N/A	H	M. Year 1 was M.	(1287)	
1956	125	744	2/5/2018	-14	-79	65	1.625	-3	-84	-81	11	-5	763	-19	125	N/A	H	M. Year 1 was L changed to N/A.	(1288). Note: Sol 1956 had no data posted until 2/5/2018.	
1957	125	741	2/6/2018	-21	-77	56	1.4	-3	-85	-82	18	-8	N/A	N/A	125	N/A	H	N/A. Year 1 was M.	(1289)	
1958	126	741	2/7/2018	-14	-77	63	1.575	-2	-82	-79	12	-5	N/A	N/A	126	N/A	H	N/A. Year 1 was M.	(1290)	
1959	126	740	2/8/2018	-15	-78	63	1.575	-2	-82	-80	13	-4	760	-20	126	N/A	H	H. Year 1 was M.	(1291)	
1960	127	740	2/9/2018	-14	-78	64	1.6	-2	-81	-79	12	-3	760	-20	127	N/A	H	H. Year 1 was M.	(1292)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/  COMMENTS	MSL Altitude meters below areoid
1961	127	742	2/11/2018	-21	-77	56	1.4	-3	-84	-81	18	-7	758	-16	127	N/A	H	M. Year 1 was M.	(1293)	
1962	128	738	2/12/2018	-14	-78	64	1.6	3	-82	-85	17	-4	758	-20	128	N/A	H	M. Year 1 was M.	(1294). Note: altitude on Sol 1962 was -4,147 meters. Altitude on Sol 1294 was -4,424 meters.  Curiosity has climbed 277 meters in a Martian year. The pressure dropped 20 Pa.  See the calculation below.  From Sol 1962 to 1985 the altitude remained at about -4147 meters.	-4147
1963	128	737	2/13/2018	-14	-77	63	1.575	3	-87	-84	17	-10	758	-21	128	N/A	H	M. Year 1 was M.	(1295)	
1964	129	736	2/14/2018	-16	-75	59	1.475	4	-84	-88	20	-9	756	-20	129	N/A	H	M. Year 1 was M.	(1296)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/  COMMENTS	MSL Altitude meters below areoid
1965	129	735	2/15/2018	-12	-76	64	1.6	3	-83	-86	15	-7	755	-20	129	N/A	H	M. Year 1 was M.	(1297)	
1966	130	735	2/16/2018	-18	-77	59	1.475	3	-82	-85	21	-5	755	-20	130	N/A	H	M. Year 1 was M.	(1298)	
1967	130	734	2/17/2018	-15	-76	61	1.525	4	-84	-88	19	-8	753	-19	130	N/A	H	M. Year 1 was M.	(1299)	
1968	131	732	2/18/2018	-19	-76	57	1.425	3	-85	-88	22	-9	752	-20, but note alteration in pressure previous year	131	945	H	M. Year 1 was H.	(1300)	
1969	131	732	2/19/2018	-16	-76	60	1.5	3	-84	-87	19	-8	752	-20, but note alteration in pressure previous year	131	1154	H	M. Year 1 was H.	(1301)	
1970	132	732	2/20/2018	-16	-77	61	1.525	4	-83	-87	20	-6	751	-19	132	N/A	H	M. Year 1 was H.	(1302)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/  COMMENTS	MSL Altitude meters below areoid
1971	132	731	2/21/2018	-13	-78	65	1.625	3	-84	-87	16	-6	751	-20	132	N/A	H	H Year 1 was H.	(1303)	
1972	133	730	2/22/2018	-14	-78	64	1.6	4	-83	-87	18	-5	750	-20	133	N/A	H	M. Year 1 was H.	(1304)	
1973	133	730	2/23/2018	-18	-78	60	1.5	5	-82	-87	23	-4	749	-19	133	N/A	H	H Year 1 was H.	(1305) Note: High ground temp on Sol 1305 was -9, low was -77	
1974	134	729	2/24/2018	-13	-77	64	1.6	4	-83	-87	17	-6	748	-19	134	N/A	H	H Year 1 was M.	(1306)	
1975	134	729	2/25/2018	-16	-76	60	1.5	4	-83	-87	20	-7	748	-19	134	N/A	H	H Year 1 was M.	(1307)	
1976	135	728	2/26/2018	-10	-77	67	1.675	4	-83	-87	14	-6	748	-20	135	N/A	H	H Year 1 was M.	(1308)	
1977	135	727	2/27/2018	-10	-77	67	1.675	6	-85	-91	16	-8	747	-20	135	N/A	H	H Year 1 was M.	(1309)	



SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/ COMMENTS	MSL Altitude meters below areoid
1978	136	727	2/28/2018	-14	-78	64	1.6	4	-81	-85	18	-3	745	-18	136	N/A	H	M. Year 1 was H.	(1310)	
1979	136	726	3/1/2018	-14	-76	62	1.55	4	-82	-86	18	-6	745	-19	136	N/A	H	H Year 1 was H.	(1311)	
1980	137	725	3/2/2018	-11	-77	66	1.65	5	-82	-87	16	-5	745	-20	137	N/A	H	H Year 1 was H.	(1312)	
1981	137	725	3/3/2018	-10	-75	65	1.625	4	-84	-86	14	-9	745	-20	137	N/A	H	H Year 1 was H.	(1313)	
1982	138	724	3/4/2018	-7	-77	70	1.75	6	-82	-88	13	-5	744	-20	138	N/A	H	H Year 1 was H.	(1314)	
1983	138	723	3/5/2018	-8	-76	68	1.7	5	-82	-87	13	-6	744	-21	138	N/A	H	H Year 1 was H.	(1315)	
1984	139	723	3/6/2018	-11	-77	66	1.65	6	-81	-87	17	-4	744	-21	139	N/A	H	H Year 1 was H.	(1316)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/  COMMENTS	MSL Altitude meters below areoid
1985	139	723	3/7/2018	-6	-77	71	1.775	6	-83	-89	12	-6	743	-20	139	N/A	H	H Year 1 was H.	(1317)	
1986	140	723	3/8/2018	-9	-74	65	1.625	7	-79	-86	16	-5	743	-20	140	N/A	VH	H Year 1 was H.	(1318) (Note: altitude on Sol 1986 was -4,151 meters. This is 4 meters lower than on Sol 1962.	-4,151
1987	140	723	3/9/2018	-11	-76	65	1.625	1	-80	-81	12	-4	742	-19	140	N/A	VH	H Year 1 was H.	(1319)	
1988	141	722	3/10/2018	-10	-73	63	1.575	2	-78	-80	12	-5	741	-19	141	N/A	H	H Year 1 was H.	(1320)	
1989	141	721	3/11/2018	-6	-75	69	1.725	3	-82	-85	9	-7	740	-19	141	N/A	H	H Year 1 was H.	(1321)	
1990	142	720	3/12/2018	-6	-74	68	1.7	2	-76	-78	8	-2	740	-20	142	N/A	VH	H Year 1 was H.	(1322)	
1991	142	721	3/13/2018	-8	-74	66	1.65	4	-78	-82	12	-4	738	-17	142	N/A	VH	H Year 1 was H.	(1323)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/  COMMENTS	MSL Altitude meters below areoid
1992	143	720	3/14/2018	-9	-76	67	1.675	4	-81	-85	13	-5	738	-18	143	N/A	H	H Year 1 was H.	(1324)	
1993	143	727	3/15/2018	-15	-75	60	1.5	4	-80	-84	19	-5	738	-11	144	N/A	H	H Year 1 was M.	(1325) (Note: altitude on Sol 1993 was -4,154 meters. This is 7 meters lower than on Sol 1962.	-4,157
1994	144	718	3/16/2018	-6	-75	69	1.725	4	-77	-81	10	-2	738	20	144	N/A	VH	H Year 1 was H.	(1326)	
1995	144	718	3/17/2018	-6	-73	67	1.675	4	-77	-81	10	-4	736	-18	145	N/A	VH	H. Year 1 was M.	(1327)	
1996	145	719	3/18/2018	-11	-76	65	1.625	4	-76	-80	15	0	735	-16	145	N/A	VH	H. Year 1 was M.	(1328) Note: altitude on Sol 1996 was -4,155 meters. This is 8 meters lower than on Sol 1962. It's not climbing! This may effect the prediction for minimum pressure. Altitude on Sol 1328 was -4,430 meters.	-4,155

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/  COMMENTS	MSL Altitude meters below areoid
1997	145	717	3/19/2018	-11	-74	63	1.575	5	-82	-87	16	-8	735	-18	146	N/A	H	H. Year 1 was M.	(1329)	
1998	146	716	3/21/2018	-5	-72	67	1.675	6	-81	-87	11	-9	734	-18	146	N/A	H	H. Year 1 was H.	(1330) Note: altitude on Sol 1998 was -4,158 meters. Altitude on Sol 1330 was -4,430 meters.	-4,158
1999	146	717	3/22/2018	-10	-72	62	1.55	7	-78	-85	17	-6	734	-17	147	N/A	H	H. Year 1 was H.	(1331) Note: altitude on Sol 1331 was -4,130 meters.  Note: This chart was accessed by NASA Ames on 3/24/2018	
2000	147	717	3/23/2018	-7	-76	69	1.725	5	-77	-82	12	-1	734	-17	147	N/A	VH	H. Year 1 was H.	(1332)	
2001	147	913	3/24/2018	-8	-75	67	1.675	4	-77	-81	12	-2	733	+180	148	N/A	VH	H. Year 1 was H.	(1333)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/COMMENTS	MSL Altitude meters
2001 Revised	147	716	3/24/2018	-8	-75	67	1.675	4	-77	-81	12	-2	733	-17	148	N/A	VH	H. Year 1 was H.	(1333). This data was revised as expected. See the top half of Figure 1 for original data for Sols 1198 to 2002 and the bottom half for how it was revised.	
2002 PER REMS	148	1167	3/25/2018	-10	-75	65	1.625	5	-76	-81	15	-1	732	+435	148	N/A	VH	H. Year 1 was H	(1334) <b>Note: altitude on Sol 2002 was -4,159 meters.</b>	-
2002 Predicted	~148	711 to 713 is estimated minimum pressure	3/25/2018										732		148	N/A		H. Year 1 was H.	(1334) <b>Note: altitude on Sol 2002 was -4,159 meters.</b>	-4,159
2002 Revised	148	715	3/25/2018	-10	-75	65	1.625	5	-76	-81	15	-1	732	-17	148	N/A	VH	H. Year 1 was H.	(1334) <b>Note: altitude on Sol 2002 was -4,159 meters.</b>	-4,159

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	MSL YEAR 2 SOL FOR THIS LS/COMMENTS	MSL Altitude meters
2003	148	716	3/26/2018	-6	-74	68	1.7	6	-77	-83	12	-3	732	-16	149	N/A	H	H. Year 1 was H.	(1335) Altitude on Sol 2003 was -4,160 meters. Altitude on Sol 1335 was -4,430 meters. MSL is 270 meters higher than 1 Martian year ago.	-4.160
2004	149	716	3/27/2018	-8	-74	66	1.65	8	-76	-84	16	-2	732	-16	149	N/A	H	H. Year 1 was H.	(1336)	
2005	149	716	3/28/2018	-11	-75	64	1.6	4	-79	-83	15	-8	734	-18	150	N/A	H	H. Year 1 was H.	(1337)	
2006	150	715	3/29/2018	-7	-74	67	1.675	5	-77	-82	12	-8	734	-19	150	N/A	H	H. Year 1 was H.	(1338) 715 Pa ties the low pressure on Sol 2002.	
END OF MSL YEAR 3E																			END OF MSL YEAR 3 BEGIN YEAR 4	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 3	Δ PRESSURE YEAR 4 TO YEAR 3 SAME LS	~LS year 3	PRESSURE YEAR 1 BEFORE REVISION	UV YR 4	UV YR 3	MSL YEAR 3 SOL FOR THIS LS/COMMENTS	MSL Altitude meters
2007	151	716	3/30/2018	-9	-73	64	1.6	6	-76	-82	15	-9	733	-17	151	N/A	H	H	(1339) Altitude for Sol 2007 = -4161 meters.	-4,160
2008	151	717	3/31/2018	-9	-74	65	1.625	6	-76	-82	15	-8	734	-17	151	N/A	H	H	(1340) Altitude for Sol 2008 = ~-4159 meters.	-4,159
2009	152	717	4/1/2018	-9	-74	65	1.625	11	-77	-88	20	-3	735	-18	152	N/A	H	H	(1341) Altitude for Sol 2009 = -4157 meters	-4,157
2010	152	716	4/2/2018	-10	-73	63	1.575	11	-79	-90	21	-6	735	-19	152	N/A	VH	H	(1342)	
2011	153	716	4/3/2018	-10	-73	63	1.575	14	-79	-93	24	-6	735	-19	153	N/A	VH	H	(1343) -4156 meters	-4,156
2012	153	715	4/4/2018	-7	-74	67	1.675	13	-78	-91	20	-4	734	-19	153	N/A	VH	H	(1344) -4155 meters	-4,155
2013	154	717	4/5/2018	-2	-72	70	1.75	13	-82	-95	15	-10	735	-18	154	N/A	H	H	(1345)	
2014	154	716	4/6/2018	-5	-72	67	1.675	13	-78	-91	18	-6	737	-21	155	N/A	H	H	(1346)	
2015	155	717	4/7/2018	-3	-74	71	1.775	8	-80	-88	11	-6	736	-19	155	N/A	H	H	(1347)	

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 3	Δ PRESSURE YEAR 4 TO YEAR 3 SAME LS	~LS year 3	PRESSURE YEAR 1 BEFORE REVISION	UV YR 4	UV YR 3	MSL YEAR 3 SOL FOR THIS LS/COMMENTS	MSL Altitude meters
2016	155	718	4/8/2018	-9	-73	64	1.6	9	-80	-89	18	-7	735	-17	156	N/A	H	H	(1348)	
2017	156	717	4/9/2018	-6	-75	69	1.725	9	-78	-87	15	-3	737	-20	156	N/A	H	H	(1349)	
2018	156	718	4/10/2018	-3	-75	72	1.8	10	-79	-89	13	-4	738	-20	157	N/A	H	M	(1350)	
2019	157	718	4/11/2018	-6	-75	69	1.725	11	-81	-92	17	-6	739	-21	157	N/A	H	M	(1351) Altitude for Sol 2019 = -4,154 meters	-4,154
2020	157	718	4/12/2018	-7	-72	65	1.625	10	-78	-88	17	-6	736	-18	158	N/A	H	H	(1352) Altitude for Sol 2020 = -4,154 meters	-4,154
2021	158	719	4/13/2018	-9	-74	65	1.625	10	-86	-96	19	-12	737	-18	158	N/A	H	H	(1353)	
2022	159	719	4/14/2018	-4	-73	69	1.725	10	-76	-86	14	-3	739	-20	159	N/A	H	H	(1354)	
2023	159	720	4/15/2018	-7	-72	65	1.625	10	-76	-86	17	-4	740	-20	159	N/A	H	H	(1355)	~-4,157
2024	160	720	4/16/2018	-7	-76	69	1.725	14	-81	-95	21	-5	739	-19	160	N/A	H	H	(1356)	
2025	160	719	4/17/2018	-4	-73	69	1.725	15	-81	-96	19	-8	738	-19	160	N/A	H	H	(1357)	
2026	161	719	4/18/2018	-6	-73	67	1.675	15	-85	-100	21	-12	738	-19	161	N/A	VH	H	(1358)	
2027	161	722	4/19/2018	-12	-74	62	1.55	13	-82	-95	25	-8	737	-15	162	N/A	H	H	(1359)	-4,166



SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 3	Δ PRESSURE YEAR 4 TO YEAR 3 SAME LS	~LS year 3	PRESSURE YEAR 1 BEFORE REVISION	UV YR 4	UV YR 3	MSL YEAR 3 SOL FOR THIS LS/COMMENTS	MSL Altitude meters
2028	162	722	4/20/2018	-8	-73	65	1.625	8	-79	-87	16	-6	739	-17	162	N/A	H	H	(1360)	-4,166
2029	162	722	4/21/2018	-11	-72	61	1.525	6	-76	-82	17	-4	739	-17	163	N/A	H	H	(1361)	-4,166
2030	163	721	4/22/2018	-4	-73	69	1.725	8	-74	-82	12	-1	739	-18	163	N/A	H	H	(1362)	-4,166
2031	163	722	4/23/2018	-6	-72	66	1.65	6	-74	-80	12	-2	740	-18	164	N/A	H	H	(1363)	-4,167
2032	164	722	4/24/2018	-5	-72	67	1.675	7	-81	-88	12	-9	740	-18	164	N/A	H	H	(1364)	-4,168
2033	165	723	4/25/2018	-10	-71	61	1.525	13	-77	-90	23	-6	739	-16	165	N/A	H	H	(1365)	~-4,172
2034	166	724	4/27/2018	-7	-70	63	1.575	18	-82	-100	25	-12	740	-16	165	N/A	H	H	(1366)	-4,176
2035	166	726	4/28/2018	-5	-72	67	1.675	15	-82	-97	20	-10	743	-17	166	N/A	VH	H	(1367)	~-4,180
2036	166	728	4/29/2018	-5	-72	67	1.675	14	-81	-95	19	-9	743	-15	167	N/A	H	H	(1368)	-4,181
2037	167	725	4/30/2018	-2	-75	73	1.825	8	-84	-92	10	-9	742	-17	167	N/A	VH	H	(1369)	-4,179
2038	167	726	5/1/2018	-3	-74	71	1.775	8	-82	-90	11	-8	744	-18	168	N/A	VH	H	(1370)	-4,180
2039	168	728	5/2/2018	0	-74	74	1.85	10	-84	-94	10	-10	746	-18	168	N/A	VH	H	(1371)	-4,179
2040	168	729	5/3/2018	-9	-74	65	1.625	13	-81	-94	22	-7	744	-15	169	N/A	H	H	(1372)	-4,179
2041	169	728	5/4/2018	-9	-71	62	1.55	10	-82	-92	19	-11	746	-18	169	N/A	H	H	(1373)	-4,179

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 3	Δ PRESSURE YEAR 4 TO YEAR 3 SAME LS	~LS year 3	PRESSURE YEAR 1 BEFORE REVISION	UV YR 4	UV YR 3	MSL YEAR 3 SOL FOR THIS LS/COMMENTS	MSL Altitude meters
2042	170	730	5/5/2018	-7	-72	65	1.625	9	-79	-88	16	-7	748	-18	170	N/A	H	H	(1374)	-4,180
2043	170	736	5/6/2018	-14	-71	57	1.425	10	-79	-89	24	-8	749	-13	170	N/A	L	H	(1375)	-4,180 Watch for a possible change in UV.
2043  REVISED AS PREDICTED	170	730	5/6/2018	-7	-71	64	1.6	10	-79	-89	17	-8	749	-19	170	N/A	H	H	(1375)	-4,180  BINGO! REMS Revised the UV. See Figure 3 below.
2044	171	730	5/7/2018	-8	-75	67	1.675	11	-79	-90	19	-4	749	-19	171	N/A	H	H	(1376)	-4,181
2045	171	733	5/8/2018	-7	-74	67	1.675	11	-85	-96	18	-11	749	-16	172	N/A	VH	H	(1377)	-4,187
2046	172	734	5/9/2018	-7	-72	65	1.625	14	-82	-96	21	-10	751	-17	172	N/A	H	H	(1378)	-4,188
2047	172	733	5/10/2018	3	-71	74	1.85	15	-83	-98	18	-12	751	-18	173	N/A	H	H	(1379)	-4,189
2048	173	735	5/11/2018	2	-73	75	1.875	15	-85	-100	13	-12	751	-16	173	N/A	VH	H	(1380)	-4,189
2049	174	735	5/12/2018	3	-72	75	1.875	15	-79	-94	12	-7	751	-16	174	N/A	VH	H	(1381)	-4,189
2050	174	737	5/13/2018	1	-71	72	1.8	17	-79	-96	16	-8	752	-15	174	N/A	VH	H	(1382)	-4,189

SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	Δ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 3	Δ PRESSURE YEAR 4 TO YEAR 3 SAME LS	~LS year 3	PRESSURE YEAR 1 BEFORE REVISION	UV YR 4	UV YR 3	MSL YEAR 3 SOL FOR THIS LS/COMMENTS	MSL Altitude meters
2051	175	739	5/14/2018	1	-71	72	1.8	16	-79	-95	15	-8	752	-13	175	N/A	VH	H	(1383)	-4,189
2052	175	739	5/15/2018	0	-72	72	1.8	16	-81	-97	16	-9	753	-14	176	N/A	H	H	(1384)	
2053	176	740	5/16/2018	3	-71	74	1.85	17	-82	-99	14	-11	755	-15	176	N/A	H	H	(1385)	
2054	176	740	5/17/2018	4	-72	76	1.9	16	-83	-99	12	-11	755	-15	177	N/A	H	H	(1386)	
2055	177	740	5/18/2018	2	-72	74	1.85	16	-81	-97	14	-9	755	-15	177	N/A	H	H	(1387)	
2056	178	740	5/19/2018	5	-74	79	1.975	17	-85	-102	12	-11	756	-16	178	N/A	H	H	(1388)	
2057	178	741	5/20/2018	2	-73	75	1.875	16	-87	-103	14	-14	N/A	N/A	178	N/A	VH	N/A	(1389)	
2058	179	743	5/21/2018	4	-71	75	1.875	16	-79	-95	12	-8	N/A	N/A	179	N/A	VH	N/A	(1390)	
2059	179	743	5/22/2018	4	-72	76	1.9	16	-81	-97	12	-9	N/A	N/A	179	N/A	VH	N/A	(1391)	
2060	180	743	5/23/2018	4	-73	77	1.925	15	-79	-94	11	-6	N/A	N/A	180	N/A	H	N/A	(1392)	

CHECK OF PRESSURE ACTUAL AND PREDICTED DIFFERENCES BETWEEN SOL 1294 AND 1962 (ONE MARTIAN YEAR AT LS 128)

	ENTERING ARGUMENTS SCALE HEIGHT 10.8 KM AND AVERAGE MARTIAN PRESSURE 6.1 MBAR							PREDICTED PRESSURE IN PASCALS BEFORE LS/ALTITUDE ADJUSTMENT	ACTUAL CLAIMED PRESURE MEASURED	PREDICTED PRESSURE IN PASCALS AFTER LS/ALTITUDE ADJUSTMENT
	KILOMETERS	10.8 km Scale Height (MARS)	RATIO A/B	=-EXP(C value)	1/D value	PRESSURE MARS BARS	PRESSURE IN MBAR			
SOL 1294 (Ls 128)	-4.424	10.8	-0.40962963	-0.663896092	-1.506259808	1.506259808	9.188184828	918.8184828	758	
SOL 1962 (Ls 128)	-4.147	10.8	-0.383981481	-0.681144041	-1.468118254	1.468118254	8.95552135	895.552135	738	738.8
MEAN AREOID	0	10.8	0	-1	-1	1	6.1	610	N/A	N/A

The Scale Height Generated Average Pressure on Sol 1294 = 918.82 Pa. Actual Pressure on Sol 1294 at altitude -4.424 Km = 758 Pa

Scale Height Generated Average Pressure on Sol 1962 = 895.55 Pa. Adjusted pressure on Sol 1962 = 7.38.8 Pa

Calculated Pressure at Sol 1962 = actual pressure at altitude -4.424 km (758 Pa) \* Scale height projected pressure at Sol 1962 (895.55 Pa)/ Scale height projected pressure at Sol 1292 (918.82 Pa). So Calculated Pressure at Sol 1962 = (758)\*(895.55)/918.82 = 738.8 Pa. The actual pressure given by REMS was 738 Pa. Either our math is very good, or someone in NASA or at REMS is doing the same math and putting out the answers as real data when it is really made up. Our bet is that the data is in fact manufactured.



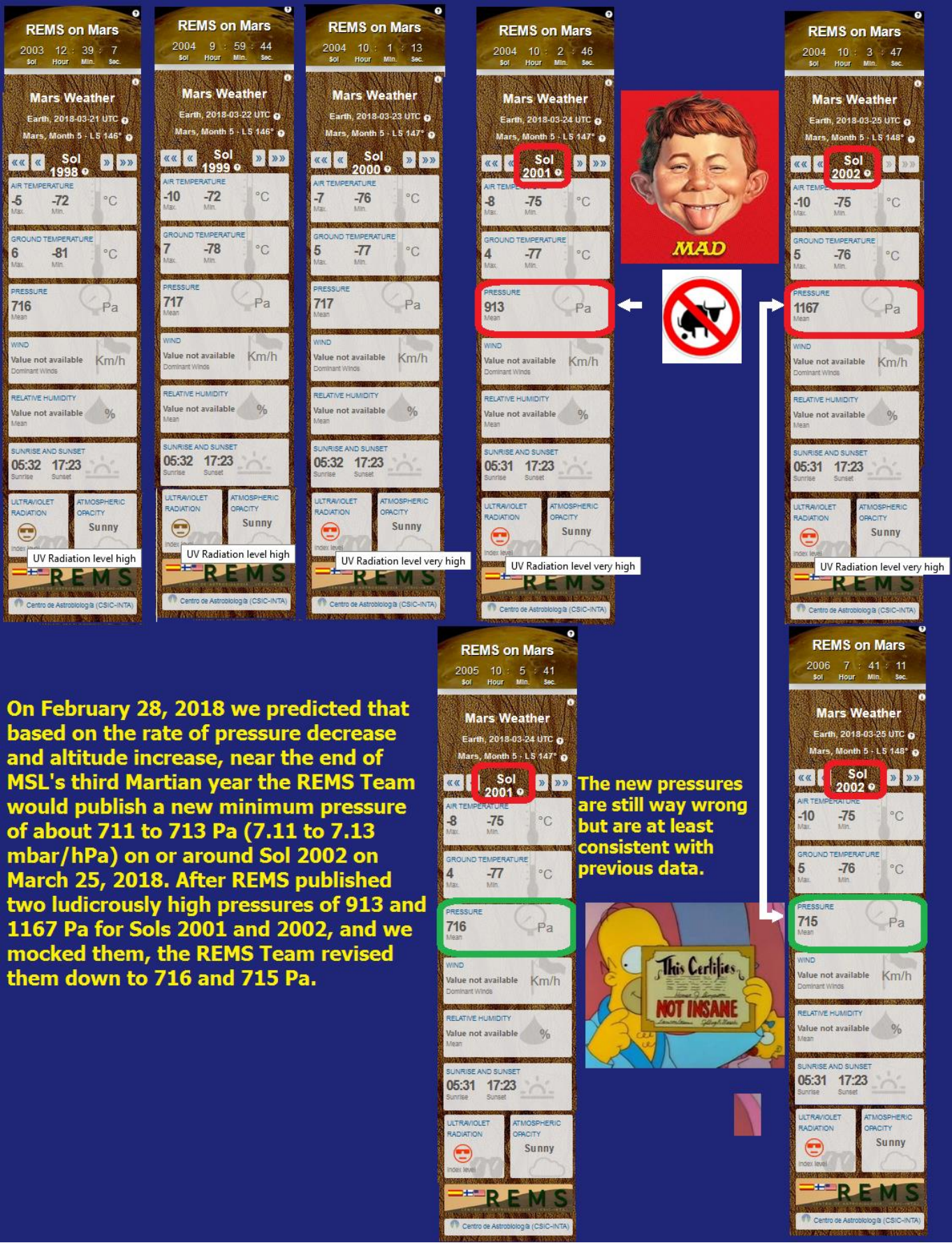


Figure 1 Top half - Original REMS data for MSL Sols 1998 to 2002. Bottom half - FIGURE 2 - NASA was forced to change their pressure data to move more in line with what we predicted that they would publish.



Figure 2 - Altitudes around the time of minimum annual pressure seen at MSL at the end of its 3rd year and beginning of its 4th year on Mars.

