

ANNEX O TO MARS CORRECT: CRITIQUE OF ALL NASA MARS WEATHER DATA MSL Year 2 Summer (Ls 270 to 0, Sols 865 to 1,020)

This Annex reveals all Mars Science Laboratory (MSL) weather data for MSL's Mars Year 2 summer. 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.

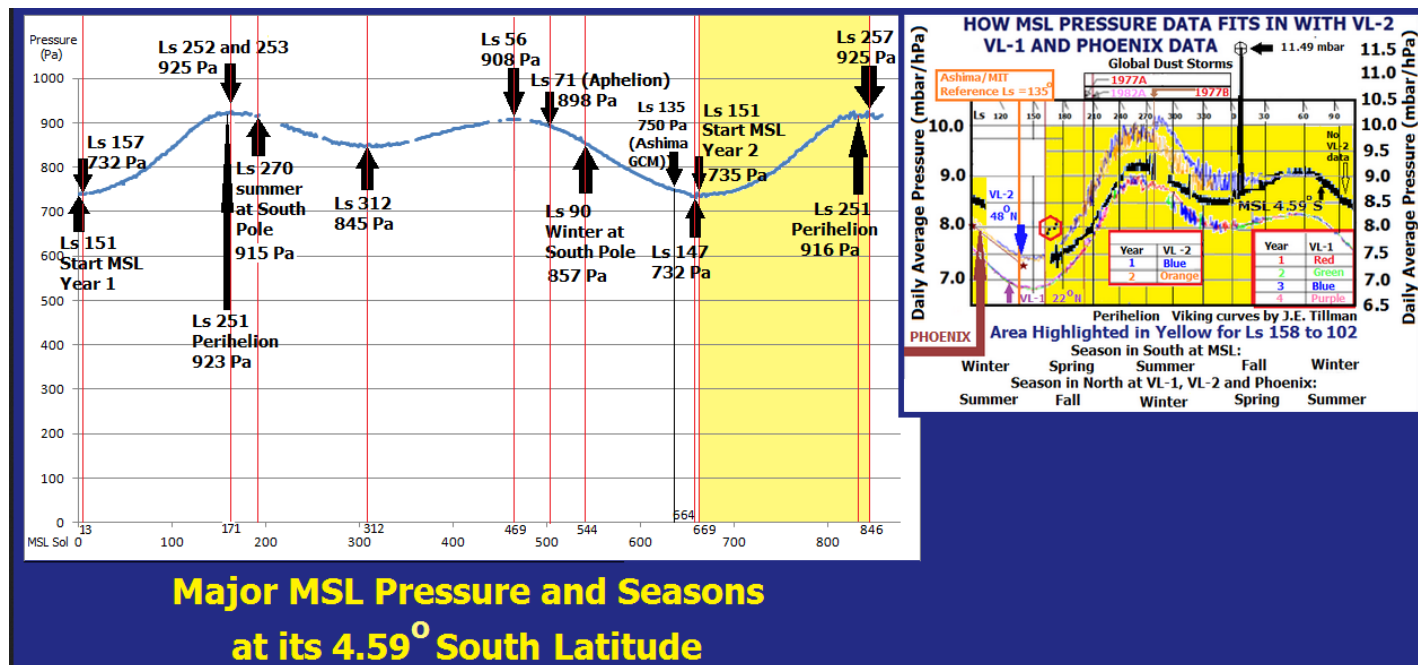


Figure 1 - MSL pressure data leading up to Ls 270, the start of MSL's second summer in the southern hemisphere of Mars. Also shown are the pressures published by NASA for Viking 1 and 2 plus Phoenix.

EXPLANATION OF COLUMN DATA FOR ANNEX O

Column A (Sol). The Martian day is about 39 minutes longer than the terrestrial day.

Column B is solar longitude (Ls). MSL is in the Southern Hemisphere on Mars. The landing was at Ls 150 in winter. Ls 180 begins the spring there. Ls 270 starts summer, Ls 0 starts the fall. Ls 90 starts the winter.

Column C shows the pressure reported by the REMS Team.

Column D shows the date on Earth.

Column E shows the maximum air temperature. 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

Column F shows minimum air temperature.

Column G shows the air temperature range for each sol. 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 **the world record in a diurnal temperature variation is 102 °F (57 °C)** (from 46 °F (8 °C) to -56 °F (-49 °C)) in [Browning, Montana](#) (elevation 4,377 feet/1,334 meters) on January 23 to 24, 1916. **There were 2 days in Montana where the temperature changed by 57 °C.**

Column H shows temperature range divided by 40. 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 MSY Year 1 when we altered the divisor 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.

Column I shows maximum ground temperature. 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.

Column J shows the minimum ground temperature. When it is -90 °C or colder the background is in purple. **The ground temperatures are not very precise.** The requirement was to measure ground brightness temperature over the range from 150 to 300 K with [a resolution of 2 K and an accuracy of 10 K.](#)

Column K shows the increase in temperature from the mast 1.5 meters above the ground down to the ground during the daylight hours. In column N anytime there is an increase in temperature of 11 °C or more this is indicated with a dark blue background.

Column L shows the decrease in temperature from the ground to the air at nights. 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 nighttime 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.

Column M shows the pressure for the same Ls in MSL Year 1.

Column N shows the absolute value of the change in pressure in Pascals from the same Ls in the previous year (Column [M] - [C]).

Column O shows the Ls during Year 1.

Column P shows the original pressure for the same Ls in MSL Year 1 before JPL revised their data.

Column Q shows the UV for the sol in Year 2.

Column R 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.

Column S shows comments, if any.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
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 Red = > 0°C	MIN GROUND TEMP °C	DAYTIME INCREASE IN TEMP °C TO GROUND Blue = >10°C	NIGHTTIME DECREASE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 1	Δ PRESSURE YEAR 1 TO YEAR 2 SAME LS (yellow = > 7 Pa)	~LS year 1	PRESSURE YEAR 1 BEFORE REVISION	UV YR 2	UV YR 1	COMMENTS
865	270	913	1/11/2015	-5	-70	-65	1.625	4	-75	9	-5	915	2	270	915.8	M	H	
866	270	911	1/12/2015	-4	-71	-67	1.675	4	-74	8	-3	914	3	271	914.34	M	H	
867	271	910	1/13/2015	-2	-71	-69	1.725	4	-72	6	-1	917	7	271	917	M	H	
868	271	908	1/14/2015	-4	-71	-67	1.675	3	-71	7	0	N/A	N/A	272	937	M	N/A	RECORD DELETED
869	272	906	1/15/2015	-4	-72	-68	1.7	5	-72	9	0	N/A	N/A	272	N/A	M	N/A	
870	273	909	1/17/2015	-6	-74	-68	1.7	4	-75	10	-1	N/A	N/A	273	N/A	M	N/A	
871	273	903	1/18/2015	-7	-70	-63	1.575	3	-60	10	10	N/A	N/A	273	N/A	M	N/A	
872	274	902	1/19/2015	1	-72	-73	1.825	5	-72	4	0	N /A	N/A	274	N/A	M	N/A	
873	275	No Report	1/20/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	275	N/A	N/A	N/A	
874	275	No Report	1/21/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	275	N/A	N/A	N/A	
875	276	No Report	1/22/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	276	N/A	N/A	N/A	
876	277	No Report	1/23/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	277	N/A	N/A	N/A	
877	277	No Report	1/24/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	277	N/A	N/A	N/A	
878	278	No Report	1/25/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	278	N/A	N/A	N/A	
879	279	No Report	1/26/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	279	N/A	N/A	N/A	
880	279	858	1/27/2015	3	-46	-49	1.225	5	-42	2	4	N/A	N/A	279	N/A	M	N/A	ORIGINAL RECORD
880	279	872	1/27/2015	3	-57	-60	1.5	5	-60	2	-3	N/A	N/A	279	N/A	M	N/A	REVISED RECORD
881	280	895	1/28/2015	-4	-73	-69	1.725	4	-74	8	-1	N/A	N/A	280	874	M	N/A	
882	280	901	1/29/2015	-6	-76	-70	1.75	3	-73	9	3	N/A	N/A	280	N/A	M	N/A	
883	281	897	1/30/2015	-4	-74	-70	1.75	3	-74	7	0	N/A	N/A	281	N/A	M	N/A	
884	282	897	1/31/2015	-5	-71	-66	1.65	5	-74	10	-3	N/A	N/A	282	N/A	M	N/A	
885	282	895	2/1/2015	-4	-71	-67	1.675	4	-73	8	-2	N/A	N/A	282	N/A	M	N/A	
886	283	894	2/2/2015	-6	-73	-67	1.675	4	-74	10	-1	N/A	N/A	283	N/A	M	N/A	
887	284	897	2/3/2015	-4	-73	-69	1.725	5	-73	9	0	N/A	N/A	284	N/A	M	N/A	
888	284	896	2/4/2015	-5	-70	-65	1.625	3	-74	8	-4	N/A	N/A	285.2	N/A	H	N/A	
889	285	895	2/5/2015	2	-70	-72	1.8	4	-74	2	-4	N/A	N/A	285.9	918	H	N/A	
890	286	892	2/6/2015	-4	-72	-68	1.7	5	-73	9	-1	N/A	N/A	286	N/A	H	N/A	
891	286	892	2/7/2015	-3	-72	-69	1.725	5	-74	8	-2	N/A	N/A	286	868	H	N/A	
892	287	892	2/8/2015	-3	-71	-68	1.7	5	-74	8	-3	895	3	287	895	H	VH	
893	287	890	2/9/2015	2	-72	-74	1.85	4	-73	2	-1	894	4	287	894	H	VH	
894	288	891	2/10/2015	-4	-75	-71	1.775	4	-74	8	1	894	3	288	894.65	M	VH	
895	289	889	2/11/2015	-4	-72	-68	1.7	5	-74	9	-2	894	5	288	892.9	H	VH	

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
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 Red = > 0°C	MIN GROUND TEMP °C	DAYTIME INCREASE IN TEMP °C TO GROUND Blue = >10°C	NIGHTTIME DECREASE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 1	Δ PRESSURE YEAR 1 TO YEAR 2 SAME LS (yellow = > 7 Pa)	~LS year 1	PRESSURE YEAR 1 BEFORE REVISION	UV YR 2	UV YR 1	COMMENTS
896	289	888	2/12/2015	1	-70	-71	1.775	8	-73	7	-3	892	4	289	894.27	H	VH	
897	290	884	2/13/2015	5	-72	-77	1.925	7	-74	2	-2	894	10	290	894.6	H	VH	
898	291	883	2/14/2015	2	-72	-74	1.85	7	-75	5	-3	894	11	290	N/A	VH	VH	
899	291	881	2/15/2015	-1	-75	-74	1.85	7	-73	8	2	888	7	291	890.7	H	VH	
900	292	883	2/16/2015	1	-70	-71	1.775	7	-75	6	-5	890	7	292	888.32	H	VH	
901	292	885	2/17/2015	-2	-71	-69	1.725	11	-74	13	-3	888	3	292	890.2	H	VH	
902	293	883	2/18/2015	0	-68	-68	1.7	5	-70	5	-2	889	6	293	889.18	H	VH	
903	294	882	2/19/2015	-2	-71	-69	1.725	6	-73	8	-2	890	8	293	890	H	VH	
904	294	878	2/20/2015	0	-71	-71	1.775	8	-74	8	-3	886	8	294	N/A	H	VH	
905	295	880	2/21/2015	-2	-71	-69	1.725	8	-75	10	-4	886	6	295	N/A	H	VH	
906	296	878	2/22/2015	-3	-76	-73	1.825	9	-75	12	1	883	5	295	N/A	H	VH	
907	296	879	2/24/2015	-1	-75	-74	1.85	8	-75	9	0	885	6	296	N/A	H	VH	
908	297	883	2/25/2015	-3	-71	-68	1.7	8	-75	11	-4	885	2	297	N/A	H	VH	
909	297	878	2/26/2015	-2	-70	-68	1.7	8	-75	10	-5	884	6	297	N/A	H	VH	
910	298	878	2/27/2015	0	-73	-73	1.825	9	-74	9	-1	884	6	298	N/A	H	VH	
911	299	874	2/28/2015	0	-70	-70	1.75	8	-75	8	-5	881	7	298	N/A	H	VH	
912	299	875	3/1/2015	-4	-75	-71	1.775	8	-76	12	-1	884	9	299	N/A	H	VH	
913	300	871	3/2/2015	-4	-71	-67	1.675	10	-70	14	1	878	7	300	N/A	H	VH	
914	300	874	3/3/2015	0	-71	-71	1.775	8	-60	8	11	879	5	300	N/A	H	VH	
915	301	878	3/4/2015	-4	-71	-67	1.675	9	-74	13	-3	878	0	301	N/A	H	VH	
916	302	872	3/5/2015	-5	-71	-66	1.65	9	-75	14	-4	873	1	301	N/A	H	VH	
917	302	871	3/6/2015	-1	-76	-75	1.875	9	-75	10	1	877	6	302	N/A	H	H	
918	303	867	3/7/2015	0	-71	-71	1.775	9	-76	9	-5	873	6	303	N/A	H	H	
919	304	870	3/8/2015	-3	-74	-71	1.775	9	-74	12	0	877	7	303	N/A	H	VH	
920	304	868	3/9/2015	-2	-72	-70	1.75	9	-72	11	0	876	8	304	N/A	H	VH	
921	305	867	3/10/2015	2	-70	-72	1.8	9	-74	7	-4	874	7	304	N/A	VH	VH	
922	305	870	3/11/2015	-2	-73	-71	1.775	9	-75	11	-2	877	7	305	N/A	VH	VH	
923	306	867	3/12/2015	-5	-72	-67	1.675	14	-74	19	-2	871	4	306	N/A	VH	VH	
924	307	867	3/13/2015	-1	-74	-73	1.825	10	-79	11	-5	877	10	306	N/A	VH	VH	
925	307	862	3/14/2015	-2	-71	-69	1.725	9	-75	11	-4	871	9	307	N/A	H	VH	
926	308	864	3/15/2015	1	-76	-77	1.925	10	-75	9	1	871	7	308	N/A	H	VH	
927	308	862	3/16/2015	-2	-76	-74	1.85	11	-75	13	1	869	7	308	N/A	VH	VH	

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
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 Red = > 0°C	MIN GROUND TEMP °C	DAYTIME INCREASE IN TEMP °C TO GROUND Blue = >10°C	NIGHTTIME DECREASE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 1	Δ PRESSURE YEAR 1 TO YEAR 2 SAME LS (yellow = > 7 Pa)	~LS year 1	PRESSURE YEAR 1 BEFORE REVISION	UV YR 2	UV YR 1	COMMENTS
928	309	862	3/17/2015	0	-74	-74	1.85	9	-74	9	0	871	9	309	N/A	VH	H	
929	310	866	3/18/2015	0	-75	-75	1.875	11	-76	11	-1	875	9	309	N/A	VH	H	
930	310	865	3/19/2015	-1	-75	-74	1.85	10	-78	11	-3	868.05	3.05	310	868	VH	H	
931	311	864	3/20/2015	-1	-69	-68	1.7	10	-78	11	-9	N/A	N/A	311	900	VH	N/A	
932	311	859	3/21/2015	1	-71	-72	1.8	10	-75	9	-4	N/A	N/A	N/A	N/A	VH	N/A	
933	312	863	3/22/2015	-4	-71	-67	1.675	11	-75	15	-4	N/A	N/A	N/A	N/A	VH	N/A	
934	313	874	3/23/2015	-13	-73	-60	1.5	-9	-75	4	-2	N/A	N/A	N/A	N/A	VH	N/A	ORIGINAL RECORD
934	313	858	3/23/2015	1	-73	-74	1.85	9	-75	8	-2	N/A	N/A	N/A	N/A	VH	N/A	REVISED RECORD
935	313	862	3/24/2015	-2	-75	-73	1.825	10	-75	12	0	864	N/A	N/A		VH	N/A	
936	314	865	3/25/2015	-3	-72	-69	1.725	9	-75	12	-3	864	-1	314	864.3	VH	H	
937	314	863	3/26/2015	0	-73	-73	1.825	10	-77	FALSE	-4	863	0	315	N/A	VH	H	
939	315	N/A	3/28/2015	N/A	N/A	N/A	N/A	N/A		N/A	N/A	866.21	N/A	315	863	N/A	H	
939	316	827	3/28/2015	-1	-60	-59	1.475	9	-62	10	-2	864	37	316	N/A	L	H	
940	316	861	3/29/2015	-2	-73	-71	1.775	8	-71	10	2	861	0	317	N/A	VH	H	
941	317	857	3/30/2015	0	-74	-74	1.85	6	-71	6	3	861	4	318	865	H	H	
942	317	857	3/31/2015	-1	-74	-73	1.825	6	-70	7	4	860	3	318	N/A	H	H	
943	318	854	4/2/2015	-1	-73	-72	1.8	5	-69	6	4	858	4	319	864	H	H	
944	318	852	4/3/2015	0	-70	-70	1.75	8	-70	8	0	857	5	319	N/A	H	H	
945	319	851	4/4/2015	-1	-72	-71	1.775	5	-74	6	-2	855	4	320	856.28	H	H	
946	320	850	4/5/2015	-2	-77	-75	1.875	6	-74	8	3	856	6	321	856	H	H	
947	320	853	4/6/2015	-3	-70	-67	1.675	6	-73	9	-3	856	3	321	855	H	H	
948	321	854	4/7/2015	-8	-73	-65	1.625	6	-73	14	0	855	1	322	855.5	H	H	
949	321	851	4/8/2015	-4	-72	-68	1.7	9	-75	13	-3	856	5	322	N/A	H	H	
950	322	850	4/9/2015	0	-73	-73	1.825	13	-71	13	2	854	4	323	855.88	H	H	
951	323	849	4/10/2015	-4	-75	-71	1.775	14	-81	18	-6	854	5	323	N/A	H	H	
952	323	847	4/11/2015	-6	-69	-63	1.575	14	-78	20	-9	852	5	324	852	H	H	
953	324	847	4/12/2015	-5	-71	-66	1.65	12	-78	17	-7	854	7	325	N/A	H	H	
954	324	847	4/13/2015	-3	-73	-70	1.75	11	-78	14	-5	856	9	325	853.68	H	H	
955	325	N/A	4/14/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	854	N/A	325	N/A	N/A	H	
956	325	N/A	4/15/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	856	N/A	325	853.68	N/A	H	
957	326	823	4/16/2015	-7	-57	-50	1.25	16	-65	23	-8	854	31	326	854.2	H	H	
958	327	848	4/17/2015	-9	-74	-65	1.65	17	-83	26	-9	853	5	327	850	H	H	

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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 Red = > 0°C	MIN GROUND TEMP °C	DAYTIME INCREASE IN TEMP °C TO GROUND Blue = >10°C	NIGHTTIME DECREASE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 1	Δ PRESSURE YEAR 1 TO YEAR 2 SAME LS (yellow = > 7 Pa)	~LS year 1	PRESSURE YEAR 1 BEFORE REVISION	UV YR 2	UV YR 1	COMMENTS
959	327	846	4/18/2015	-4	-78	-74	1.85	14	-84	18	-6	853	7	327	N/A	H	H	
960	328	846	4/19/2015	-8	-77	-68	1.7	15	-86	23	-10	853	7	328	N/A	H	H	
961	328	849	4/20/2015	-3	-71	-68	1.7	11	-80	13	-7	849	0	329				
962	329	844	4/21/2015	-2	-73	-71	1.775	11	-80	13	-7	850	6	329	850	H	H	
963	329	850	4/22/2015	-5	-71	-66	1.65	10	-77	15	-6	853	2	329	852	H	H	
964	330	847	4/23/2015	-13	-72	-59	1.475	9	-77	22	-5	850	3	330	852	H	H	
965	331	847	4/24/2015	-10	-75	-65	1.625	8	-75	18	0	849	2	330	850	H	H	
966	331	850	4/25/2015	-12	-73	-61	1.525	9	-75	21	-2	850	0	331	N/A	H	H	
967	332	844	4/26/2015	-2	-74	-72	1.8	12	-76	14	-2	850	5	331	N/A	H	H	
968	332	848	4/27/2015	-3	-71	-68	1.7	11	-75	14	-4	852	4	332	851	H	H	
969	333	844	4/28/2015	-2	-72	-70	1.75	11	-76	13	-4	852	8	333	850	H	H	
970	333	849	4/29/2015	-4	-71	-67	1.675	11	-77	15	-6	850	1	333	N/A	H	H	
971	334	848	4/30/2015	-3	-71	-68	1.7	14	-76	17	-5	849	1	334	N/A	M	H	
972	334	847	5/1/2015	-2	-73	-71	1.775	14	-80	16	-7	848	1	334	N/A	H	H	
973	335	844	5/2/2015	-4	-72	-68	1.7	16	-81	20	-9	847	3	335	N/A	H	H	
974	336	842	5/3/2015	-3	-73	-70	1.75	14	-80	17	-7	848	6	336	N/A	H	H	
975	336	843	5/4/2015	-3	-73	-70	1.75	14	-78	17	-5	851	8	336	N/A	H	H	
976	337	842	5/5/2015	-7	-73	-66	1.65	10	-78	17	-5	850	8	337	N/A	M	H	
977	337	841	5/6/2015	-4	-75	-71	1.775	10	-78	14	-3	848	7	338	N/A	M	H	
978	338	842	5/7/2015	-2	-73	-71	1.775	10	-78	12	-5	848	6	338	N/A	M	H	
979	338	841	5/9/2015	-4	-79	-75	1.875	11	-80	15	-1	849	8	339	N/A	M	H	
980	339	840	5/10/2015	1	-73	-74	1.85	11	-78	10	-5	846	6	339	N/A	M	H	
981	339	841	5/11/2015	-3	-73	-74	1.55	8	-78	11	-5	845	4	340	N/A	M	H	
982	340	840	5/12/2015	-4	-74	-70	1.75	7	-76	11	-2	845	5	340	N/A	M	H	
983	340	840	5/13/2015	-6	-76	-70	1.75	12	-77	18	-1	849	9	341	N/A	M	H	
984	341	840	5/14/2015	-6	-74	-68	1.7	11	-83	17	-9	848	8	341	N/A	M	H	
985	342	840	5/15/2015	-5	-78	-73	1.825	9	-81	14	-3	849	9	342	N/A	M	H	
986	342	840	5/16/2015	-1	-74	-73	1.825	9	-79	10	-5	849	9	342	N/A	M	H	
987	343	839	5/17/2015	-7	-74	-67	1.675	9	-77	16	-3	847	8	343	N/A	M	H	
988	343	840	5/18/2015	-10	-75	-65	1.625	8	-77	18	-2	846	6	344	N/A	M	H	
989	344	841	5/19/2015	-10	-74	-64	1.6	9	-79	19	-5	847	6	344	N/A	M	H	

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
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 Red = > 0°C	MIN GROUND TEMP °C	DAYTIME INCREASE IN TEMP °C TO GROUND Blue = >10°C	NIGHTTIME DECREASE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 1	Δ PRESSURE YEAR 1 TO YEAR 2 SAME LS (yellow = > 7 Pa)	~LS year 1	PRESSURE YEAR 1 BEFORE REVISION	UV YR 2	UV YR 1	COMMENTS
990	345	839	5/20/2015	-1	-76	-75	1.875	9	-79	10	-3	849	10	345	N/A	H	H	
991	345	840	5/21/2015	-3	-73	-70	1.75	4	-80	7	-7	847	7	345	N/A	H	H	
992	345	842	5/22/2015	-6	-73	-67	1.675	4	-78	10	-5	850	8	346	N/A	H	H	
993	346	840	5/23/2015	-8	-73	-65	1.625	3	-76	11	-3	847	7	346	N/A	H	H	
994	346	842	5/24/2015	-5	-79	-68	1.7	3	-77	8	+2	848	6	347	N/A	H	H	
995	347	842	5/25/2015	-4	-74	-70	1.75	5	-78	9	-4	48	6	347	N/A	H	VH	
996	348	842	5/26/2015	-4	-72	-68	1.7	2	-75	6	-3	847	5	348	N/A	H	H	
997	348	842	5/27/2015	-13	-74	-61	1.525	1	-76	14	-2	847	5	348	N/A	H	H	
998	348	842	5/28/2015	-8	-73	-65	1.625	1	-74	9	-1	848	6	349	N/A	H	H	
999	349	N/A	5/29/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	848	N/A	349	N/A	N/A	H	
1000	350	841	5/30/2015	-12	-74	-62	1.55	1	-75	13	-1	849	8	350	N/A	H	H	
1001	350	853 revised to 841	5/31/2015	-12	-79	-67	1.675	2	-77	14	+2	849	4	350	N/A	H	H	
1002	351	844	6/1/2015	-12	-77	-65	1.625	1	-77	13	0	852	8	351	N/A	H	H	
1003	351	843	6/2/2015	-10	-74	-64	1.6	1	-77	11	-3	852	9	351	N/A	H	H	
1004	352	842	6/3/2015	-9	-74	-65	1.625	1	-75	10	-1	852	10	352	N/A	H	H	
1005	352	843	6/4/2015	-12	-75	-63	1.575	1	-75	13	0	853	10	353	N/A	H		
1006	353	870 revised to 844	6/5/2015	-56 revised to -13	-78	-22	0.367 revised to 1.625	-42 revised to 0	-77	14 revised to 13	+1	848	4	353	N/A	L revised to H	H	
1007	353	832 revised to 845	6/6/2015	-12	-79	-67	1.675	-3 revised to 1	-77	13	+2	849	4	354	N/A	L revised to H	H	
1008	354	867 revised to 844	6/7/2015	-66 revised to -12	-76 revised to -79	-10 revised to - 67	0.25 revised to 1.625	-56 revised to 2	-77	10 revised to 14	+2	851	7	354	N/A	L revised to H	H	SOLAR CONJUNCTION - DATA NOT RELIABLE OR AVAILABLE
1009	354	845	6/8/2015	-12	-75	-63	1.575	1	-76	13	-1	852	7	354	N/A	H	H	CONJUNCTION
1010	355	846	6/9/2015	-11	-74	-63	1.575	-1	-76	10	-2	851	5	355	N/A	H	H	CONJUNCTION
1011	355	845	6/10/2015	-12	-78	-66	1.65	0	-75	12	+3	850	5	356	N/A	H	H	CONJUNCTION
1012	356	846	6/11/2015	-16	-81	-65	1.625	-1	-77	15	+4	851	5	356	N/A	H	H	CONJUNCTION
1013	356	846	6/12/2015	-12	-80	-68	1.7	0	-77	12	+3	853	7	357	N/A	H	H	CONJUNCTION
1014	356	846	6/13/2015	-14	-77	-63	1.575	0	-77	14	0	853	7	357	N/A	H	H	CONJUNCTION
1015	357	847	6/14/2015	-13	-75	-62	1.55	1	-76	14	-1	851	4	358	N/A	H	H	CONJUNCTION

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
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 Red = > 0°C	MIN GROUND TEMP °C	DAYTIME INCREASE IN TEMP °C TO GROUND Blue = >10°C	NIGHTTIME DECREASE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 1	Δ PRESSURE YEAR 1 TO YEAR 2 SAME LS (yellow = > 7 Pa)	~LS year 1	PRESSURE YEAR 1 BEFORE REVISION	UV YR 2	UV YR 1	COMMENTS
1016	358	847	6/16/2015	-11	-76	-65	1.625	0	-77	11	-1	850	3	358	N/A	H	H	CONJUNCTION
1017	359	850	6/17/2015	-12	-78	-66	1.65	-1	-77	11	+1	852	2	359	N/A	H	H	CONJUNCTION
1018	359	850	6/18/2015	-15	-79	-64	1.6	-1	-78	14	+1	853	3	359	N/A	H	H	CONJUNCTION
1019	0	819	6/19/2015	-14	-36	-22	0.55	-2	-24	12	+12	853	34	0	N/A	M	H	CONJUNCTION
1020	0	832	6/20/2015	-12	-63	-51	1.275	1°	-65	13	-2	854	22	0	N/A	H	H	BEGIN AUTUMN
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 Red = > 0°C	MIN GROUND TEMP °C	DAYTIME INCREASE IN TEMP °C AIR TO GROUND Blue = >10°C	NIGHTTIME DECREASE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 1	Δ PRESSURE YEAR 1 TO YEAR 2 SAME LS (yellow = > 7 Pa)	~LS year 1	PRESSURE YEAR 1 BEFORE REVISION	UV YR 2	UV YR 1	COMMENTS

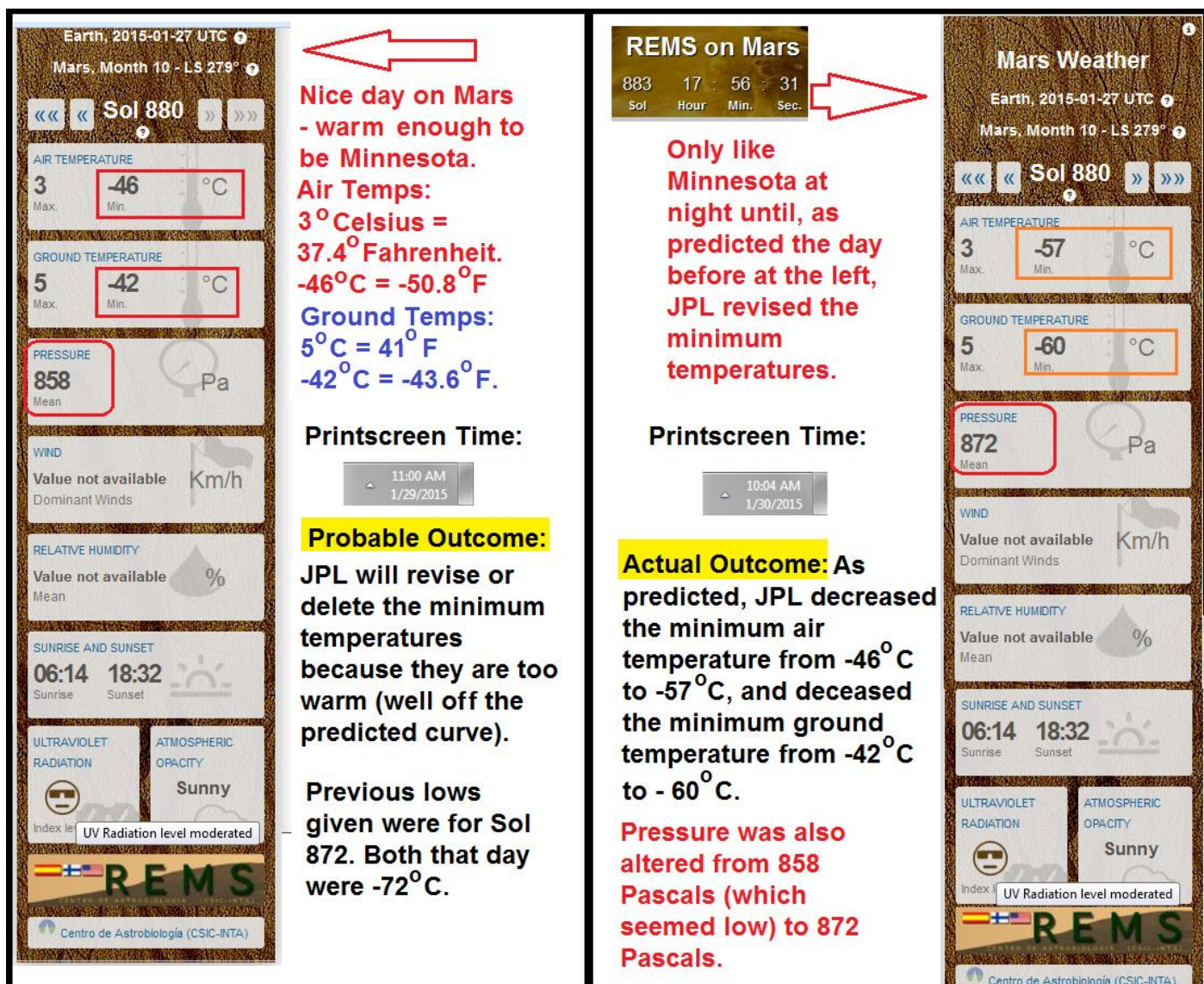


Figure 2 below: The low temperatures for Sol 880 were too warm by previous standards. However the previous days no data was posted for Sols 873 to 879, so it is possible that the instrumentation was down or the signals were blocked. If so, this data for Sol 880 might be only partial for that sol and not include the true low. Should that be the case, a change to N/A would be both necessary and fully justified. The REMS Team and JPL should include such concerns with the reports they publish. Failure to do so casts further doubt on their credibility. The right below is what they presented to the public the next day, After we duplicated the questionable temperatures, JPL revised them down appreciably and raised the pressure a good bit too.

In MSL's second Martian summer in June, 2015 the pattern continues to be that after we highlight weather anomalies on Tables (like that above), the REMS Team and JPL revise their data to put it back on the expected curve. This may be like revising Miami weather after Hurricane Andrew on August 24, 1992 to make that day look like any other summer day. When they revise weather anomalies they need to explain the basis for their actions.

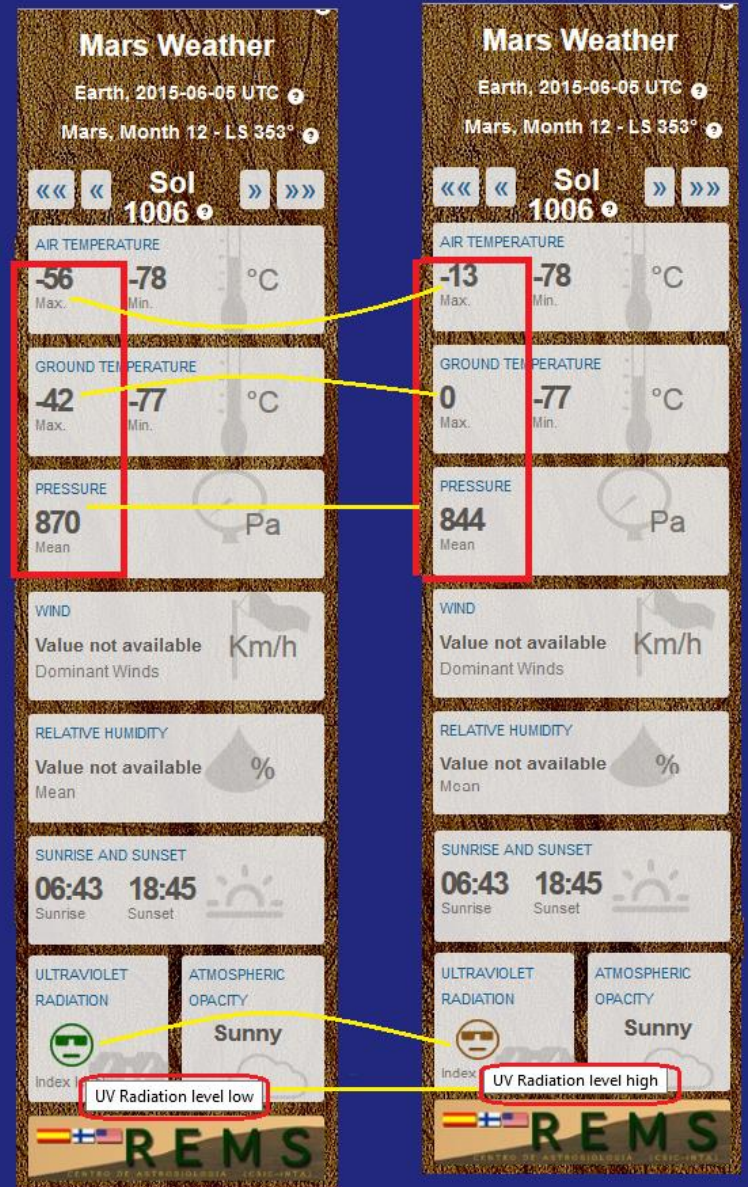


Figure 3 - REMS Team and JPL continue to revise data after we highlight anomalies.

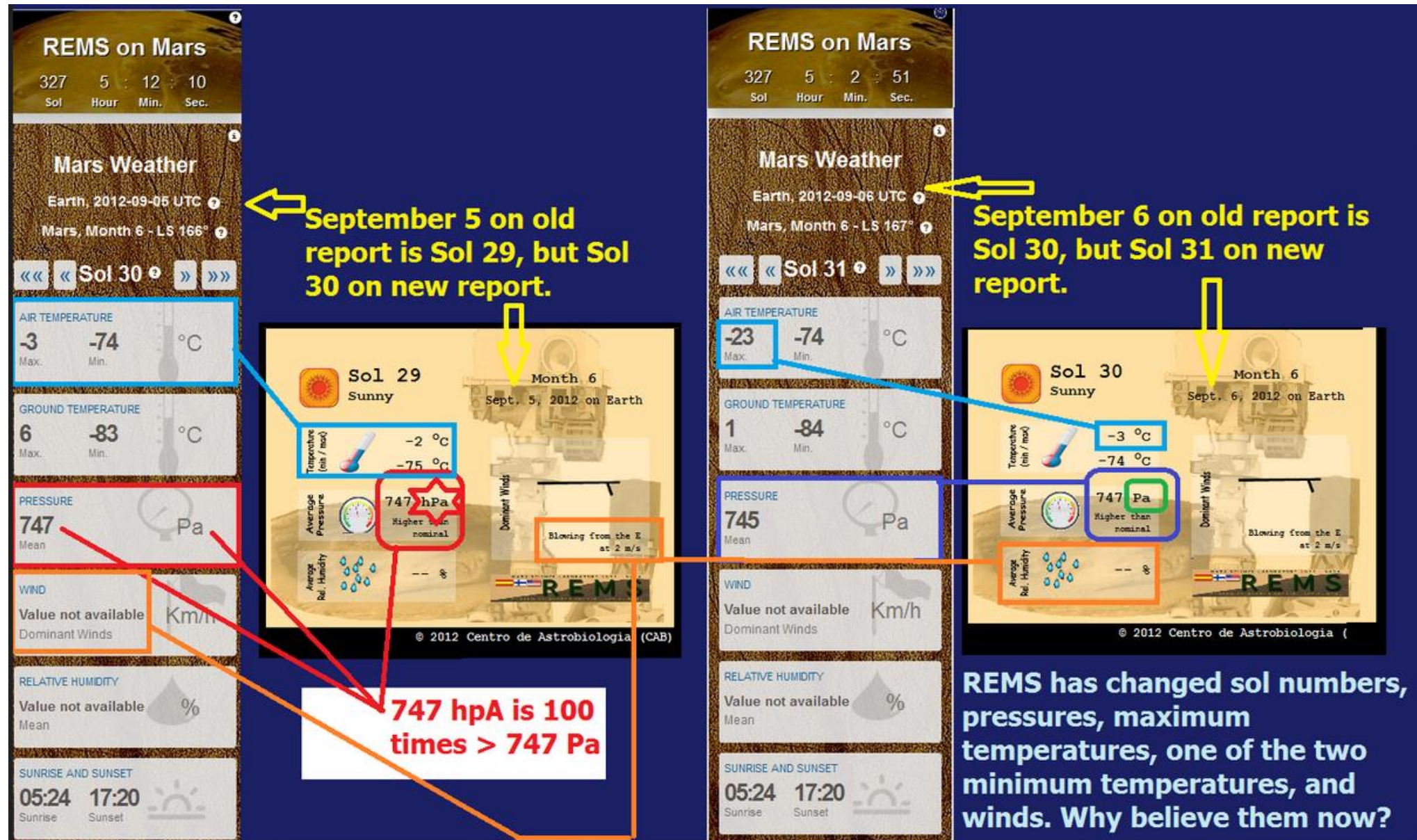


Figure 4 - Mistakes and significant data alterations early on cast real doubt on the accuracy or honesty of MSL weather data.