

**ANNEX AA TO
MARS CORRECT: CRITIQUE OF ALL NASA MARS WEATHER DATA
MSL Year 4 Fall Weather Data (LS 0 to 90, Sols 2357 to 2550)**

This Annex reveals all Mars Science Laboratory (MSL) weather data for MSL's Mars Year 4 Fall. 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 2,357 to 2,550 are Year 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, the third year "Year 2" and the fourth year “Year 3.”

Column A (Sol). The Martian day is about 39 minutes longer than the terrestrial day.	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 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.	Column M 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 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 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 N shows the pressure for the same Ls in MSL Year 1.
Column C shows the pressure reported by the REMS Team.	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 O shows the absolute value of the change in pressure in Pascals from the same Ls in the previous year (Column [M] - [C]).
Column D shows the date on Earth.	Column K. Drop in ground temperature from day to night.	Column P shows the original pressure for the same Ls in MSL Year 1 before JPL revised their data.
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 L 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 in indicated with a dark blue background.	Column Q shows the Ls during Year 1.
Column F shows minimum air temperature.		Column R shows the UV for the sol in Year 2.
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 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.
		Column T shows comments, if any.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	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 AND ALTITUDE METERS
						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)					
2357	0	820	3/24/2019	-19	-78	-59	1.475	5	-83	-88	24	-5	838	-18	359	N/A	M	H	(1687) First day of fall.
2358	0	820	3/25/2019	-18	-74	-56	1.4	4	-84	-88	22	-10	840	-20	0	N/A	M	H	(1688)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

2359	1	821	3/26/2019	-20	-74	-54	1.35	6	-82	-88	26	-8	840	-19	0	N/A	M	H	(1689) ALTITUDE - 4,156
2360	1	823	3/27/2019	-18	-74	-56	1.4	5	-83	-88	23	-9	840	-17	1	N/A	M	H	(1690)
2361	2	824	3/28/2019	-10	-75	-65	1.625	5	-82	-87	15	-7	N/A	N/A	1	N/A	M	N/A	(1691) -4,157 METERS
2362	2	824	3/30/2019	-17	-74	-57	1.425	8	--91	-99	25	-17	820	-16	2	N/A	M	H	(1692)
2363	3	824	3/31/2019	-18	-74	-56	1.4	9	-85	-94	27	-11	840	-16	2	N/A	M	H	(1693)
2364	4	826	4/1/2019	-20	-75	-55	1.375	5	-88	-93	25	-13	840	-14	3	N/A	M	H	(1694) -4,158 METERS
2365	4	826	4/2/2019	-19	-74	-55	1.375	1	-79	-80	20	-5	840	-14	3	N/A	M	H	(1695)
2366	5	825	4/3/2019	-19	-74	-55	1.375	1	-83	-85	20	-9	841	-16	4	N/A	M	H	(1696)
2367	5	826	4/4/2019	-18	-75	-57	1.425	1	-79	-80	19	-4	841	-15	4	N/A	M	H	(1697)
																			LS/SOL CORRECTION
2367	5	826	4/4/2019	-18	-75	-57	1.425	1	-79	-80	19	-4	842	-16	5	N/A	M	H	(1698)
2368	6	827	4/5/2019	-18	-77	-59	1.475	1	-78	-79	19	-1	843	-16	5	N/A	M	H	(1699)
2369	6	836	4/6/2019	-19	-76	-57	1.425	0	-85	-85	19	-9	842	-6	6	N/A	M	H	(1700)
2370	7	820	4/7/2019	-20	-75	-55	1.375	3	-81	-84	23	-6	841	-21	6	N/A	M	H	(1701)
2371	7	827	4/8/2019	-19	-74	-55	1.375	1	-80	-81	20	-6	842	-15	7	N/A	M	H	(1702)
2372	8	828	4/9/2019	-20	-74	-54	1.35	1	-84	-85	21	-10	830	-2	7	N/A	M	H	(1703)
2373	8	828	4/10/2019	-19	-76	-57	1.425	0	-79	-79	19	-3	844	-16	8	N/A	M	H	(1704)
2374	9	829	4/11/2019	-18	-75	-57	1.425	0	-82	-82	18	-7	850	-21	8	N/A	M	H	(1705)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

2375	9	829	4/12/2019	-19	-75	-56	1.4	1	-78	-79	20	-3	845	-16	9	N/A	M	H	(1706)
2376	10	830	4/13/2019	-20	-75	-55	1.375	0	-80	-80	20	-5	860	-30	9	N/A	M	H	(1707)
																			LS/SOL CORRECTION
2376	10	830	4/13/2019	-20	-75	-55	1.375	0	-80	-80	20	-5	846	-16	10	N/A	M	H	(1708)
2377	10	830	4/14/2019	-21	-74	-53	1.325	-1	-80	-79	20	-6	847	-17	10	N/A	M	H	(1709)
2378	11	830	4/15/2019	-22	-74	-52	1.3	-1	-80	-79	21	-6	848	-18	11	N/A	M	H	(1710)
2379	11	830	4/16/2019	-20	-74	-54	1.35	0	-79	-79	20	-5	848	-18	11	N/A	M	H	(1711)
2380	12	831	4/17/2019	-20	-76	-56	1.4	0	-79	-79	20	-3	849	-18	12	N/A	M	H	(1712)
2381	12	832	4/18/2019	-18	-75	-57	1.425	0	-78	-78	18	-3	850	-18	12	N/A	M	H	(1713)
2382	13	834	4/19/2019	-21	-75	-54	1.35	0	-79	-79	21	-4	849	-15	13	N/A	M	H	(1714)
2383	13	834	4/20/2019	-20	-74	-54	1.35	-1	-80	-79	19	-6	851	-17	13	N/A	M	H	(1715)
2384	13	834	4/21/2019	-21	-76	-55	1.375	0	-80	-80	21	-4	850	-16	14	N/A	M	H	(1716)
2385	14	835	4/22/2019	-20	-75	-55	1.375	-1	-81	-80	19	-6	851	-16	14	N/A	M	H	(1717)
								Was +5 last year	Was -119 last year)										
2386	14	837	4/23/2019	-20	-77	-57	1.425	-1	-81	-80	19	-4	852	-15	15	N/A	M	H	(1718)
2387	15	839	4/24/2019	-21	-77	-56	1.4	0	-83	-83	21	-6	853	-14	15	N/A	M	H	(1719)
2388	15	839	4/25/2019	-22	-75	-53	1.325	-2	-80	-78	20	-5	853	-14	16	N/A	M	H	(1720)
2389	16	821	4/26/2019	-22	-68	-46	1.15	-10	-66	-56	12	+2	852	-31	16	N/A	L	H	(1721) See comments on Low UV on Figure 1

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

																			below.
2389	16	838	4/26/2019	-22	-76	54	1.35	-1	-81	-80	21	-5	852	-14	16	N/A	M	H	(1721) Revised as expected. See Figure 1.
Revised 2390	16	841	4/27/2019	-23	-77	54	1.35	-11	-81	-70	12	-4	854	-13	17	N/A	L	H	(1722) See comments on Low UV on Figure 1 below.
2390	16	838	4/27/2019	-23	-77	54	1.35	-11	-81	-70	12	-4	854	-16	17	N/A	M	H	(1722) Revised as expected. See Figure 1.
Revised 2391	17	838	4/28/2019	-21	-77	56	1.4	-1	-79	-78	20	-2	854	-16	17	N/A	M	H	(1723)
2392	17	840	4/29/2019	-20	-76	56	1.4	-1	-80	-79	19	-4	856	-16	18	N/A	M	H	(1724)
2393	18	841	4/30/2019	-22	-76	54	1.35	-1	-80	-79	21	-4	857	-16	18	N/A	M	H	(1725)
2394	18	841	5/1/2019	-22	-75	53	1.325	-1	-80	-79	21	-5	855	-14	19	N/A	M	H	(1726)
2395	19	843	5/2/2019	-23	-76	53	1.325	-1	-82	-81	22	-6	855	-12	19	N/A	M	H	(1727)
2396	19	843	5/3/2019	-22	-76	54	1.35	-3	-81	-78	19	-5	855	-12	20	N/A	M	H	(1728)
2397	20	843	5/4/2019	-21	-75	54	1.35	-2	-80	-78	19	-5	858	-15	20	N/A	M	H	(1729)
2398	20	844	5/6/2019	-22	-76	54	1.35	-2	-80	-78	20	-4	858	-14	21	N/A	M	H	(1730)
2399	21	845	5/7/2019	-22	-75	53	1.325	-2	-80	-78	20	-5	857	-12	21	N/A	M	H	(1731)
2400	21	846	5/8/2019	-24	-76	52	1.3	-3	-82	-79	21	-6	858	-12	22	N/A	M	H	(1732)
2401	22	846	5/9/2019	-23	-77	54	1.35	-3	-82	-79	20	-5	859	-13	22	N/A	M	H	(1733)
2402	22	846	5/10/2019	-23	-77	54	1.35	-3	-82	-79	20	-5	859	-13	23	N/A	M	H	(1734)
2403	23	847	5/11/2019	-23	-76	53	1.325	-2	-81	-79	21	-5	861	-14	23	N/A	M	H	(1735)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

2404	23	848	5/12/2019	-24	-77	53	1.325	-2	-81	-79	22	-4	860	-12	23	N/A	M	H	(1736)
2405	24	852	5/13/2019	-29	-75	46	1.15	-3	-80	-77	26	-5	861	-9	24	N/A	M	H	(1737)
2406	24	849	5/14/2019	-24	-77	53	1.325	-2	-82	-80	22	-5	861	-12	24	N/A	M	H	(1738)
2407	25	851	5/15/2019	-24	-77	53	1.325	-3	-83	-80	21	-6	861	-10	25	N/A	M	H	(1739)
2408	25	852	5/16/2019	-27	-78	51	1.275	0	-85	-85	27	-7	863	-11	26	N/A	M	H	ALTITUDE -4,158
																			(1740)
2409	26	852	5/17/2019	-27	-77	50	1.25	1	-82	-83	28	-5	865	-13	26	N/A	M	H	ALTITUDE -4,158
																			(1741)
2410	26	852	5/18/2019	-25	-77	52	1.3	0	-82	-82	25	-5	863	-11	27	N/A	M	H	(1742)
2411	27	852	5/19/2019	-28	-77	49	1.225	1	-86	-87	29	-9	863	-11	27	N/A	M	H	(1744)
2412	27	853	5/20/2019	-14	-78	64	1.6	0	-89	-89	14	-11	865	-12	28	N/A	M	H	(1745)
2413	27	854	5/21/2019	-24	-78	54	1.35	-2	-84	-82	22	-6	866	-12	28	N/A	M	H	ALTITUDE -4,158
																			(1746)
2414	28	854	5/22/2019	-24	-75	51	1.275	-3	-86	-83	21	-11	866	-12	29	N/A	M	H	(1747)
2415	28	854	5/23/2019	-24	-77	53	1.325	-3	-84	-81	21	-7	867	-13	29	N/A	M	H	(1748)
2416	29	861	5/24/2019	-14	-78	64	1.6	0	-84	-84	14	-6	867	-6	30	N/A	M	M	(1749) ALTITUDE -4,157
2417	29	842	5/25/2019	-18	-65	46	1.15	1	-72	-73	19	-7	867	-22	30	N/A	M	M	(1750)
2418	30	855	5/26/2019	-21	-75	54	1.35	-1	-85	-84	20	-10	867	-12	31	N/A	M	H	(1751)
2419	30	855	5/27/2019	-16	-75	59	1.475	0	-101	-101	16	-26	867	-12	31	N/A	M	H	(1752)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

2420	31	855	5/28/2019	-26	-78	52	1.3	0	--94	-94	26	-16	868	-13	32	N/A	M	H	(1753) ALTITUDE - 4,154
2421	31	858	5/29/2019	-26	-73	47	1.175	-2	--94	-92	24	-21	870	-12	32	N/A	M	H	(1754) ALTITUDE -4,154
2422	32	857	5/30/2019	-27	-73	46	1.15	-1	-119	-118	26	-46	870	-13	32	N/A	M	H	(1755) ALTITUDE -4,154
2423	32	857	5/31/2019	-24	-73	49	1.225	-2	-121	-119	22	-48	871	-14	33	N/A	M	H	(1756) See Figure 2 for low temperature problem.
2424	33	860	6/1/2019	-24	-74	50	1.25	-2	-86	-84	22	-12	871	-11	33	N/A	M	H	(1757)
2425	33	860	6/2/2019	-24	-79	55	1.375	-2	-87	-85	22	-8	871	-11	34	N/A	M	H	(1758)
2426	34	859	6/3/2019	-24	-76	52	1.3	-3	-87	-84	21	-12	871	-12	34	N/A	M	H	(1759)
2427	34	860	6/4/2019	-21	-76	55	1.375	-1	-85	-84	20	-9	872	-12	35	N/A	M	H	(1760)
2428	35	861	6/5/2019	-21	-79	58	1.45	-3	-83	-80	18	-4	872	-11	35	N/A	M	H	(1761)
2429	35	863	6/6/2019	-23	-77	54	1.35	-2	-83	-81	21	-6	872	-9	36	N/A	M	H	(1762) ALTITUDE - 4,154
2430	35	863	6/7/2019	-21	-77	56	1.4	-3	-84	-81	18	-7	873	-10	36	N/A	M	H	(1763)
2431	36	863	6/8/2019	-25	-78	53	1.325	-4	-85	-81	21	-7	872	-9	37	N/A	M	H	(1764)
2432	36	863	6/9/2019	-14	-79	65	1.625	-2	-86	-84	12	-7	873	-10	37	N/A	M	H	(1765) ALTITUDE - 4,153
2433	37	865	6/10/2019	-19	-79	60	1.5	-3	-87	-84	16	-8	873	-8	38	N/A	M	H	(1766)
2434	37	865	6/12/2019	-17	-79	62	1.55	-4	-87	-83	13	-8	874	-9	38	N/A	M	H	(1767)
2435	38	864	6/13/2019	-23	-79	56	1.4	-7	-85	-78	16	-6	875	-11	38	N/A	M	H	(1768)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

2436	38	863	6/14/2019	-22	-80	58	1.45	-3	-87	-84	19	-7	875	-12	39	N/A	M	H	(1769) ALTITUDE -4,148
2437	39	866	6/15/2019	-25	-79	54	1.35	-7	-85	-78	18	-6	875	-9	39	N/A	M	H	(1770)
2438	39	865	6/16/2019	-25	-80	55	1.375	-3	-86	-83	22	-6	876	-11	40	N/A	M	H	(1771) White light seen. Figure 3 below.
2439	40	865	6/17/2019	-20	-80	60	1.5	1	-84	-85	21	-4	876	-11	40	N/A	M	H	(1772) ALTITUDE -4,145
2440	40	865	6/18/2019	-26	-79	53	1.325	1	-83	-84	27	-4	876	-11	41	N/A	M	H	(1773)
2441	41	867	6/19/2019	-28	-81	53	1.325	0	84	-84	28	-3	877	-10	41	N/A	M	H	(1774)
2442	41	867	6/20/2019	-27	-78	51	1.275	-1	-83	-82	26	-5	877	-10	42	N/A	M	H	(1775)
2443	41	866	6/21/2019	-26	-80	54	1.35	-1	-83	-82	25	-3	878	-12	42	N/A	M	H	(1776)
																			LS/SOL CORRECTION
2443	41	866	6/21/2019	-26	-80	54	1.35	-1	-83	-82	25	-3	877	-11	42	N/A	M	H	(1775)
2444	42	867	6/22/2019	-26	-80	54	1.35	0	-83	-83	26	-3	878	-11	42	N/A	M	H	(1776)
2445	42	868	6/23/2019	-26	-80	54	1.35	-2	-89	-87	24	-9	877	-9	43	N/A	M	H	(1777)
2446	43	868	6/24/2019	-25	-78	53	1.325	0	-86	-86	25	-8	877	-11	43	N/A	M	H	(1778)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

2447	43	867	6/25/2019	-23	-81	58	1.45	1	-86	-87	24	-5	878	-11	44	N/A	M	H	(1779) ALTITUDE - 4,147
2448	44	869	6/26/2019	-26	-80	54	1.35	-3	-86	-83	23	-6	879	-10	44	N/A	M	H	(1780) -4144 METER
2449	44	870	6/27/2019	-24	-79	55	1.375	0	-89	-89	24	-10	879	-9	45	N/A	M	H	(1781) -4142 METER
2450	45	869	6/28/2019	-26	-79	53	1.325	-1	-90	-89	25	-11	878	-9	45	N/A	M	H	(1782)
2451	45	868	6/29/2019	-22	-79	57	1.425	0	-88	-88	22	-9	879	-11	45	N/A	M	H	(1783)
2452	46	870	6/30/2019	-19	-80	61	1.525	0	-98	-98	19	-18	883	-13	46	1294	M	H	(1784)
2453	46	871	7/1/2019	-22	-79	57	1.425	1	-86	-87	23	-7	883	-12	46	N/A	M	H	(1785) -4142 METERS
2454	47	870	7/2/2019	-23	-79	56	1.4	-6	-85	-79	17	-6	N/A	N/A	47	N/A	M	N/A	(1786) -4142 METERS
2455	47	870	7/3/2019	-29	-80	51	1.275	-7	-86	-79	22	-6	881	-11	47	N/A	M	H	(1787)
2456	47	870	7/4/2019	-27	-81	54	1.35	-7	-85	-78	20	-4	881	-11	48	N/A	M	H	(1788)
2457	48	872	7/5/2019	-23	-79	56	1.4	-7	-85	-78	16	-6	881	-9	48	N/A	M	H	(1789)
2458	48	871	7/6/2019	-27	-80	53	1.325	-7	-86	-79	20	-6	882	-11	49	N/A	M	H	(1790)
2459	49	871	7/7/2019	-26	-80	54	1.35	-7	-86	-79	19	-6	882	-11	49	N/A	M	H	(1791) -4142 METERS
2460	49	876	7/8/2019	-27	-81	54	1.35	-8	-86	-78	19	-5	883	-7	50	N/A	M	H	(1792)
2461	50	886	7/9/2019	-28	-79	51	1.275	-9	-86	-77	19	-7	883	+3	50	N/A	N/A	H	(1793)
2462	50	870	7/10/2019	-27	-80	53	1.325	-9	-85	-76	18	-5	883	-13	50	N/A	M	H	(1794)
2463	51	872	7/11/2019	-23	-79	56	1.4	-7	-99	-92	16	-20	882	-10	51	N/A	M	H	(1795)
2464	51	873	7/12/2019	-22	-80	58	1.45	-9	-86	-77	13	-6	883	-10	51	N/A	M	H	(1796)
2465	52	873	7/13/2019	-22	-80	58	1.45	-9	-86	-77	13	-6	884	-11	52	N/A	M	H	(1797)
2466	52	873	7/14/2019	-31	-79	48	1.2	-7	-86	-79	24	-7	883	-10	52	N/A	M	H	(1798)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

2467	52	873	7/15/2019	-28	-79	51	1.275	-5	-87	-82	23	-8	883	-10	53	N/A	M	H	(1799)
2468	53	873	7/16/2019	-30	-79	49	1.225	-6	-87	-81	24	-8	881	-8	53	N/A	M	H	(1800)
2469	53	874	7/17/2019	-23	-79	56	1.4	-7	-84	-77	16	-5	882	-8	54	N/A	M	H	(1801)
2470	54	873	7/18/2019	-22	-78	56	1.4	-7	-82	-75	15	-4	882	-9	54	N/A	M	H	(1802)
2471	54	874	7/20/2019	-32	-78	46	1.15	-7	-83	-76	25	-5	882	-8	55	N/A	M	M	(1803)
2472	55	874	7/21/2019	-27	-79	52	1.3	-7	-99	-92	20	-20	883	-8	55	N/A	M	H	(1804)
2473	55	874	7/22/2019	-31	-75	44	1.1	-2	-90	-88	29	-13	883	-9	55	N/A	M	H	(1805)
2474	56	874	7/23/2019	-30	-75	45	1.125	-5	-104	-99	25	-26	884	-10	56	N/A	M	M	(1806)
2475	56	874	7/24/2019	-28	-77	49	1.225	-1	-86	-85	27	-9	884	-10	56	N/A	M	M	(1807)
2476	56	874	7/25/2019	-26	-81	55	1.375	-2	-85	-83	24	-4	884	-10	57	N/A	M	H	(1808)
2477	57	874	7/26/2019	-30	-78	48	1.2	-3	-86	-83	27	-8	888	-14	57	N/A	M	H	(1809)
																			-4134 meters
2478	57	875	7/27/2019	-34	-78	44	1.1	-4	-85	-81	30	-7	883	-8	58	N/A	M	H	(1810)
2479	58	875	7/28/2019	-32	-79	47	1.175	-5	-87	-82	27	-8	882	-7	58	N/A	M	H	(1811)
2480	58	874	7/29/2019	-31	-78	47	1.175	-3	-87	-84	28	-9	882	-8	59	N/A	M	H	(1812)
2481	59	874	7/30/2019	-30	-80	50	1.25	-9	-88	-79	21	-8	881	-7	59	N/A	M	H	(1813)
																			-4134 meters
2482	59	873	7/31/2019	-29	-80	51	1.275	-8	-87	-79	21	-7	881	-8	59	N/A	M	H	(1814)
2483	60	874	8/1/2019	-28	-81	53	1.325	-5	-88	-83	23	-7	881	-7	60	N/A	M	H	(1815)
2484	60	874	8/2/2019	-33	-80	47	1.175	-8	-88	-80	25	-8	882	-8	60	N/A	M	M	(1816)
2485	61	874	8/3/2019	-31	-81	50	1.25	-8	-87	-79	23	-6	882	-8	61	N/A	M	M	(1817)
2486	61	873	8/4/2019	-28	-82	54	1.35	-7	-89	-82	21	-7	881	-8	61	N/A	M	M	(1818)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

2487	61	872	8/5/2019	-31	-82	51	1.275	-6	-88	-82	25	-6	880	-8	62	N/A	M	H	(1819)
2488	62	872	8/6/2019	-27	-80	53	1.325	-6	-88	-82	21	-6	881	-9	62	N/A	M	M	(1820)
2489	62	872	8/7/2019	-29	-81	52	1.3	-6	-86	-80	23	-5	882	-10	63	N/A	M	M	(1821)
2490	63	887	8/8/2019	-60	-80	20	0.5	-51	-89	-38	-9	-9	881	+6	63	N/A	L	M	(1822) See Figure 4.
2490	63	873	8/8/2019	-28	-80	52	1.3	-7	-89	-82	21	-9	881	-8	63	N/A	M	M	(1822) See Figure 4.
revised																			
2491	63	873	8/9/2019	-29	-80	51	1.275	-7	-89	-82	22	-9	879	-6	64	N/A	M	H	(1823)
2492	64	874	8/10/2019	-32	-81	49	1.225	-7	-89	-82	25	-8	879	-5	64	N/A	M	H	(1824)
2493	64	872	8/11/2019	-29	-81	52	1.3	-9	-91	-82	20	-10	878	-6	64	N/A	M	H	(1825)
2494	65	872	8/12/2019	-28	-81	53	1.325	-7	-87	-80	21	-6	878	-6	65	N/A	M	H	(1826)
2495	65	873	8/13/2019	-32	-81	49	1.225	-7	-86	-79	25	-5	879	-6	65	N/A	M	H	(1827)
2496	65	873	8/14/2019	-29	-80	51	1.275	-7	-88	-81	22	-8	878	-5	66	N/A	M	H	(1828)
2497	66	873	8/15/2019	-28	-82	54	1.35	-7	-89	-82	21	-7	877	-4	66	N/A	M	H	(1829)
																			NOTE: ONLY ~50 M ALTITUDE CHANGE FROM LAST YEAR = ~4.15 Pa CHANGE
2498	66	872	8/16/2019	-33	-81	48	1.2	-8	-88	-80	25	-7	877	-5	67	N/A	M	H	(1830)
2499	67	871	8/17/2019	-28	-82	54	1.35	-9	-88	-79	19	-6	876	-5	67	N/A	M	H	(1831)
2500	67	871	8/18/2019	-30	-81	51	1.275	-6	-87	-81	24	-6	875	-4	68	N/A	M	H	(1832)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF <1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

2501	68	871	8/19/2019	-27	-81	54	1.35	-7	-88	-81	20	-7	875	-4	68	N/A	M	H	(1833)
2502	68	871	8/20/2019	-31	-81	50	1.25	-8	-89	-81	23	-8	875	-4	68	N/A	M	H	(1834)
2503	69	870	8/21/2019	-32	-81	49	1.225	-7	-89	-82	25	-8	873	-2	69	N/A	M	H	(1835)
2504	69	870	8/22/2019	-31	-81	50	1.25	-8	-89	-81	23	-8	873	-3	69	N/A	M	H	(1836)
2505	70	870	8/23/2019	-322	-80	48	1.2	-8	-89	-81	24	-9	872	-2	70	N/A	M	H	(1837)
2506	70	869	8/24/2019	-31	-81	50	1.25	-8	-89	-81	23	-8	872	-3	70	N/A	M	H	(1838)
2507	70	869	8/26/2019	-28	-82	54	1.35	-6	-87	-81	22	-5	872	-3	71	N/A	M	H	(1839)
2508	71	868	8/27/2019	-33	-82	49	1.225	-7	-88	-81	26	-6	871	-3	71	N/A	M	H	(1840)
2509	71	867	8/28/2019	-33	-82	49	1.225	-8	-89	-81	25	-7	870	-3	72	N/A	M	H	(1841)
2510	72	871	8/29/2019	-34	-81	47	1.175	-15	-89	-74	20	-8	869	-2	72	N/A	M	H	(1842)
2510 revised	72	866	8/29/2019	33	-81	48	1.2	-7	-89	-82	26	-8	869	-3	72	N/A	M	H	(1842)
2511	72	865	8/30/2019	-30	-81	51	1.275	-7	-89	-82	23	-8	869	-4	72	N/A	M	H	(1843)
2512	73	864	8/31/2019	-28	-82	54	1.35	-6	-87	-81	22	-5	869	-5	73	N/A	M	H	(1844)
2513	73	864	9/1/2019	-28	-81	53	1.325	-6	-86	-80	22	-5	866	-2	73	N/A	M	H	(1845)
2514	74	865	9/2/2019	-29	-81	52	1.3	-7	-90	-83	22	-9	868	-3	73	N/A	M	H	(1846)
2515	74	864	9/3/2019	-32	-81	49	1.225	-7	-89	-82	25	-8	866	-2	74	N/A	M	H	(1847)
2516	74	862	9/4/2019	-31	-82	51	1.275	-8	-90	-82	23	-8	865	-3	75	N/A	M	H	(1848)
2517	75	862	9/5/2019	-29	-82	53	1.325	-8	-88	-80	21	-6	864	-2	75	N/A	M	H	(1849)
2518	75	860	9/6/2019	-26	-81	55	1.375	-8	-86	-78	18	-5	864	-4	76	N/A	M	H	(1850)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

2519	76	859	9/7/2019	-31	-82	51	1.275	-6	-88	-82	25	-6	864	-5	76	N/A	M	H	(1851)
2520	76	859	9/8/2019	-32	-81	49	1.225	-7	-90	-83	25	-9	863	-4	77	N/A	M	H	(1852)
2521	77	859	9/9/2019	-29	-80	51	1.275	-7	-90	-83	22	-10	863	-4	77	N/A	M	M	(1853)
2522	77	858	9/10/2019	-32	-82	50	1.25	-8	-90	-82	22	-8	861	-3	77	N/A	M	M	(1854)
2523	78	857	9/11/2019	-28	-82	54	1.35	-8	-88	-80	20	-6	861	-4	78	N/A	M	M	(1855)
2524	78	856	9/12/2019	-31	-80	49	1.225	-7	-86	-79	24	-6	859	-3	78	N/A	M	H	(1856)
2525	79	855	9/13/2019	-29	-83	54	1.35	-6	-90	-84	23	-1	858	-3	79	N/A	M	H	(1857)
2526	79	854	9/14/2019	-29	-82	53	1.325	-6	-90	-84	23	-2	857	-3	79	N/A	M	N/A	(1858)
2527	79	854	9/15/2019	-31	-83	52	1.3	-8	-89	-81	23	+2	857	-3	80	N/A	M	N/A	(1859)
2528	80	852	9/16/2019	-28	-81	53	1.325	-6	-89	-83	22	-2	857	-55	80	N/A	M	N/A	(1860)
2529	80	851	9/17/2019	-30	-81	51	1.275	-8	-88	-80	22	+1	857	-6	81	N/A	M	N/A	(1861)
2530	81	850	9/18/2019	-27	-82	55	1.375	-7	-89	-82	20	-7	854	-4	81	N/A	M	N/A	(1862)
2531	81	850	9/19/2019	-32	-81	49	1.225	-6	-88	-82	26	-7	853	-3	81	N/A	M	N/A	(1863)
2532	82	848	9/20/2019	-31	-81	50	1.25	-12	-90	-78	19	-9	852	-4	82	N/A	L	N/A	(1864). For low UV see Figure 5. It was changed to M.
2532 REVISED	82	849	9/20/2019	-31	-81	50	1.25	-6	-90	-84	25	-9	852	-3	82	N/A	M		(1864). For low UV see Figure 5. It was changed to M.
2533	82	842	9/21/2019	-32	-79	47	1.175	-10	-83	-73	22	-4	852	-10	82	N/A	L	N/A	(1865) For low UV see Figure 5. It was changd

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF <1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS

																			to M.
2533	82	847	9/21/2019	-32	-83	51	1.275	-9	-89	-80	23	-6	852	-5	82	N/A	M	N/A	(1865) For low UV see Figure 5. It was changd to M.
REVISED																			
2534	83	847	9/22/2019	-29	-82	53	1.325	-6	-89	-83	23	-7	850	-3	83	N/A	M	H	(1866)
2535	83	845	9/23/2019	-25	-82	57	1.425	-7	-89	-82	18	-7	848	-3	84	N/A	M	H	(1867)
2536	83	844	9/24/2019	-30	-82	52	1.3	-7	-89	-82	23	-7	848	-4	84	N/A	M	H	(1868)
2537	84	843	9/25/2019	-29	-80	51	1.275	-7	-89	-82	22	-9	846	-3	84	N/A	M	H	(1869)
2538	84	843	9/26/2019	-28	-83	55	1.375	-6	-89	-83	22	-6	845	-2	85	N/A	M	H	(1870)
2539	85	842	9/27/2019	-30	-81	51	1.275	-7	-91	-84	23	-10	844	-2	85	N/A	M	H	(1871)
2540	85	843	9/28/2019	-30	-81	51	1.275	-6	-89	-83	24	-8	843	0	86	N/A	M	H	(1872)
2541	86	839	9/29/2019	-30	-81	51	1.325	-6	-89	-83	24	-8	842	-3	86	N/A	M	H	(1873)
2542	86	839	9/30/2019	-30	-81	51	1.325	-6	-89	-83	24	-8	840	-1	86	N/A	M	H	(1874)
2543	87	838	10/2/2019	-26	-83	57	1.425	-8	-89	-81	18	-6	839	-1	87	N/A	M	H	(1875)
2544	87	837	10/3/2019	-30	-81	51	1.325	-7	-90	-83	23	-9	838	-1	87	N/A	M	H	(1876)
2545	88	835	10/4/2019	-33	-81	48	1.2	-7	-90	-83	26	-9	837	-2	88	N/A	M	H	(1877)
2546	88	833	10/5/2019	-31	-82	51	1.325	-8	-88	-80	23	-6	835	-2	88	N/A	M	M	(1878)
2547	88	832	10/6/2019	-24	-82	58	1.45	-7	-90	-83	17	-8	842	-10	89	N/A	M	M	(1879)
2548	89	831	10/7/2019	-28	-81	53	1.325	-7	-88	-81	21	-7	831	0	89	N/A	M	M	(1880)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C, YELLOW IF <60 °C	AIR TEMP RANGE °C/40, GREEN IF<1.5	MAX GROUND TEMP °C, RED IF > 0°C	MIN GROUND TEMP °C, PURPLE IF 90°C OR COLDER	Δ GROUND TEMP DAY TO NIGHT, YELLOW = -80 TO -89, RED = -90 OR COLDER DROP	DAYTIME CHANGE IN TEMP °C AIR TO GROUND BLUE = >10°C	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUN, PURPLE = >10°C	PRESSURE AT SAME LS IN MSL YEAR 2	Δ PRESSURE YEAR 3 TO YEAR 2 SAME LS, YELLOW = > 7 Pa)	~LS year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	(MSL YEAR 2 SOL FOR THIS LS)/COMMENTS
2549	89	830	10/8/2019	-30	-82	52	1.3	-5	-88	-83	25	-6	832	-2	90	N/A	M	M	(1881)
2550	90	829	10/9/2019	-31	-83	52	1.3	-5	-92	-87	26	-9	831	-2	90	N/A	M	M	(1882)
Winter begins																			

Figure 1 - Rare Low UV report. Same changes to UV rating.

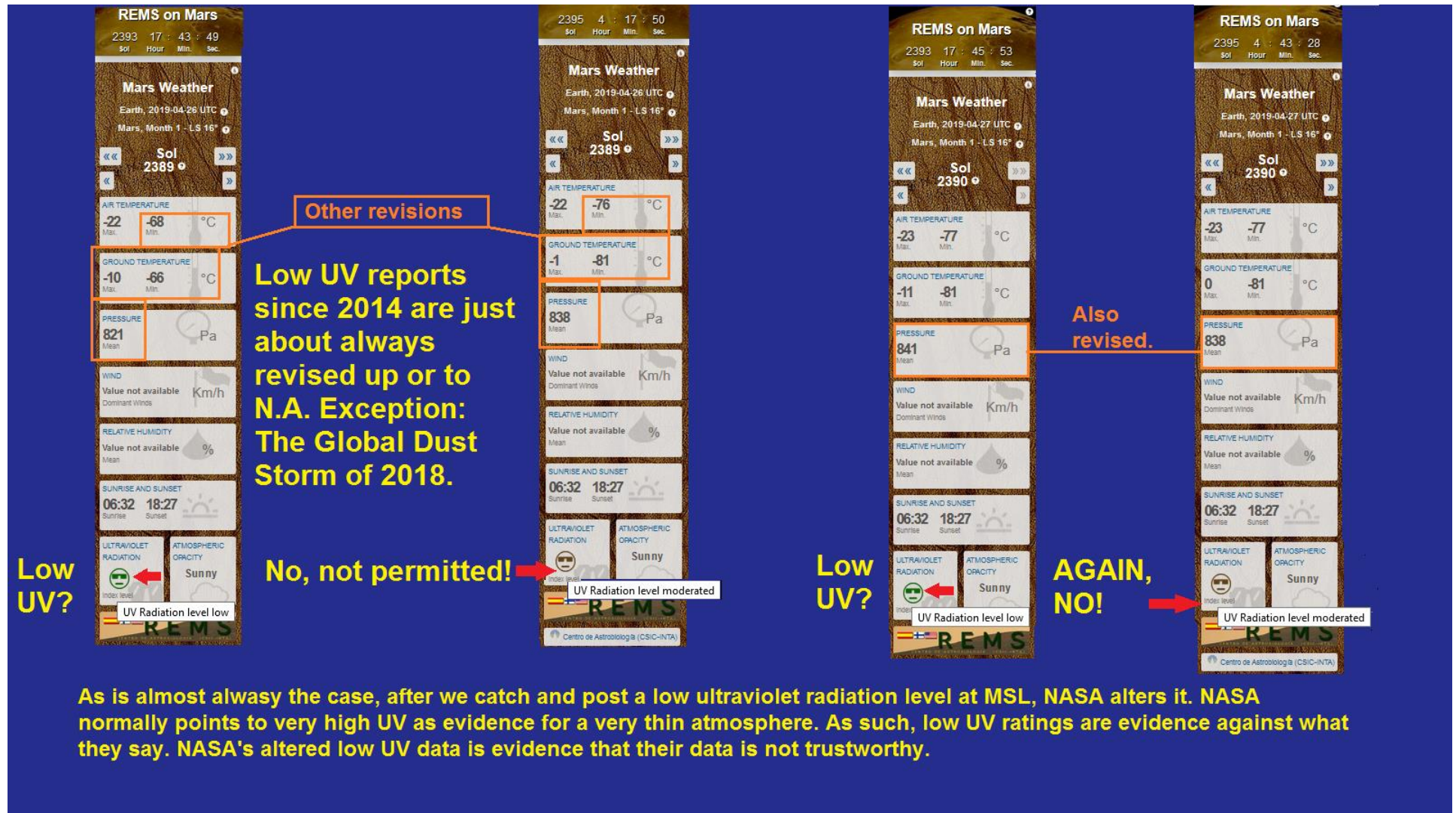


Figure 2 - Odds differences on low ground temperatures on sols 2423 and 2424.

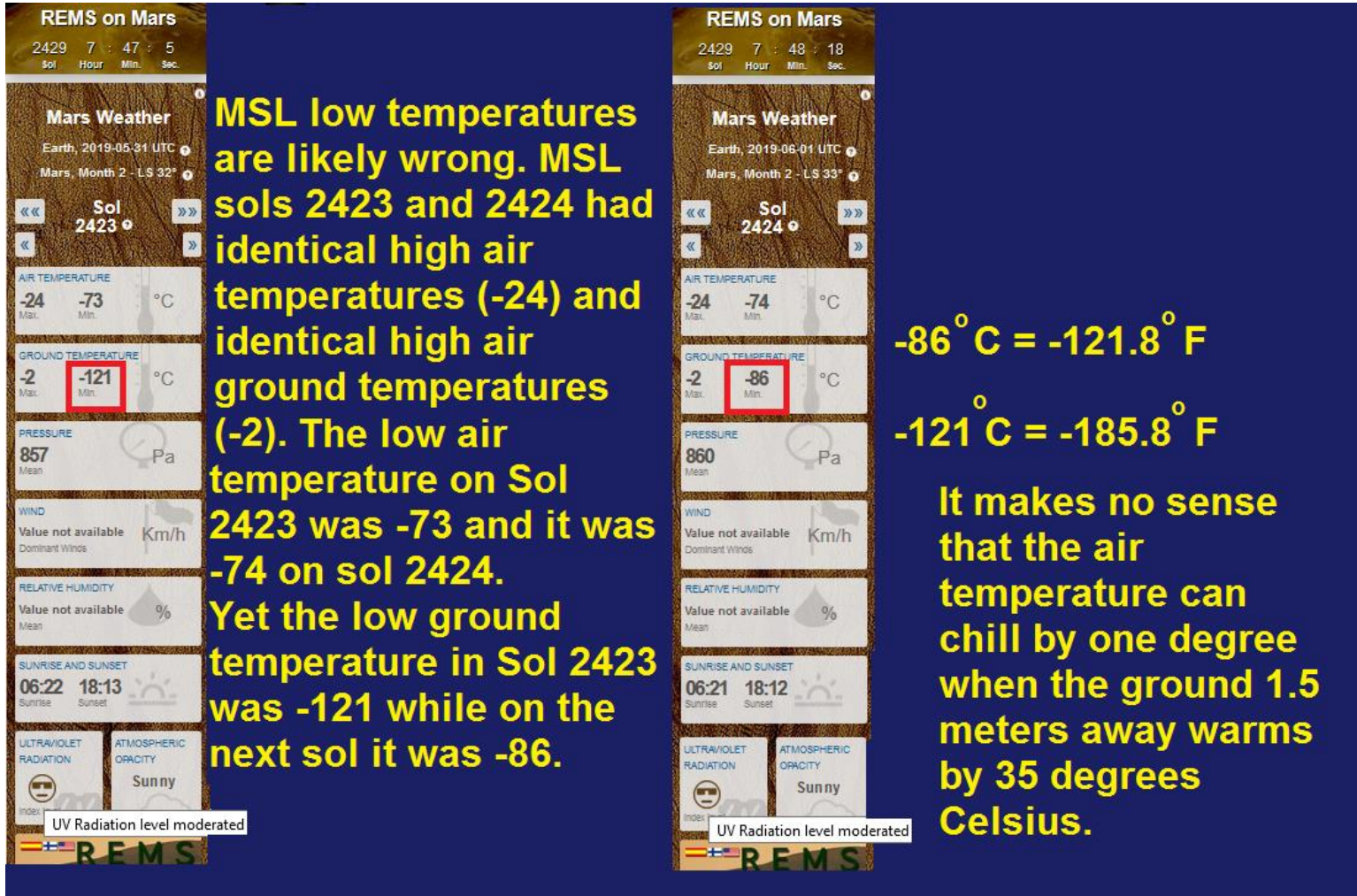


Figure 3 - Figure 3 - White light seen on Sol 2438.

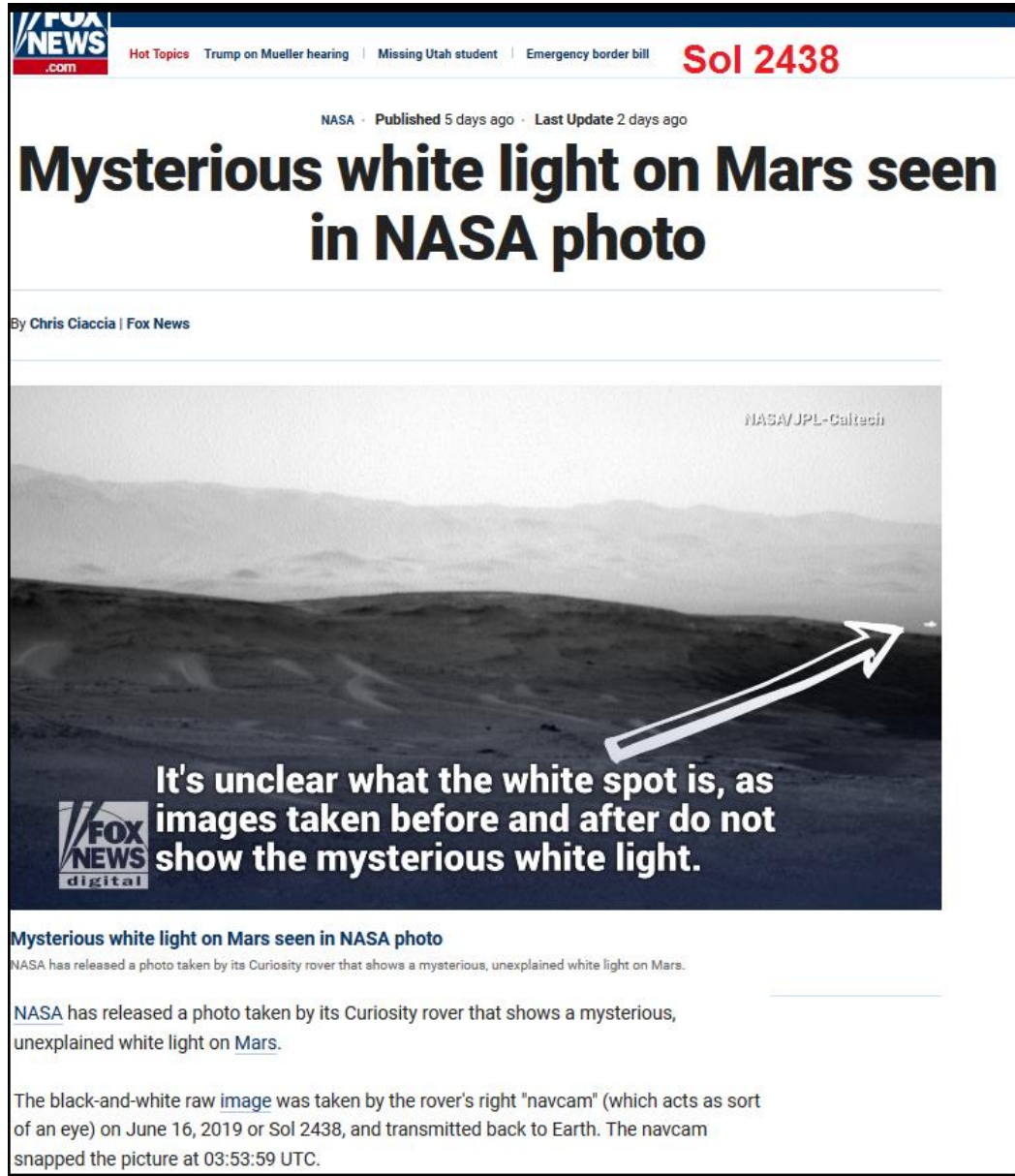


Figure 4 - Figure 4 - Revisions to Sol 2490 data.

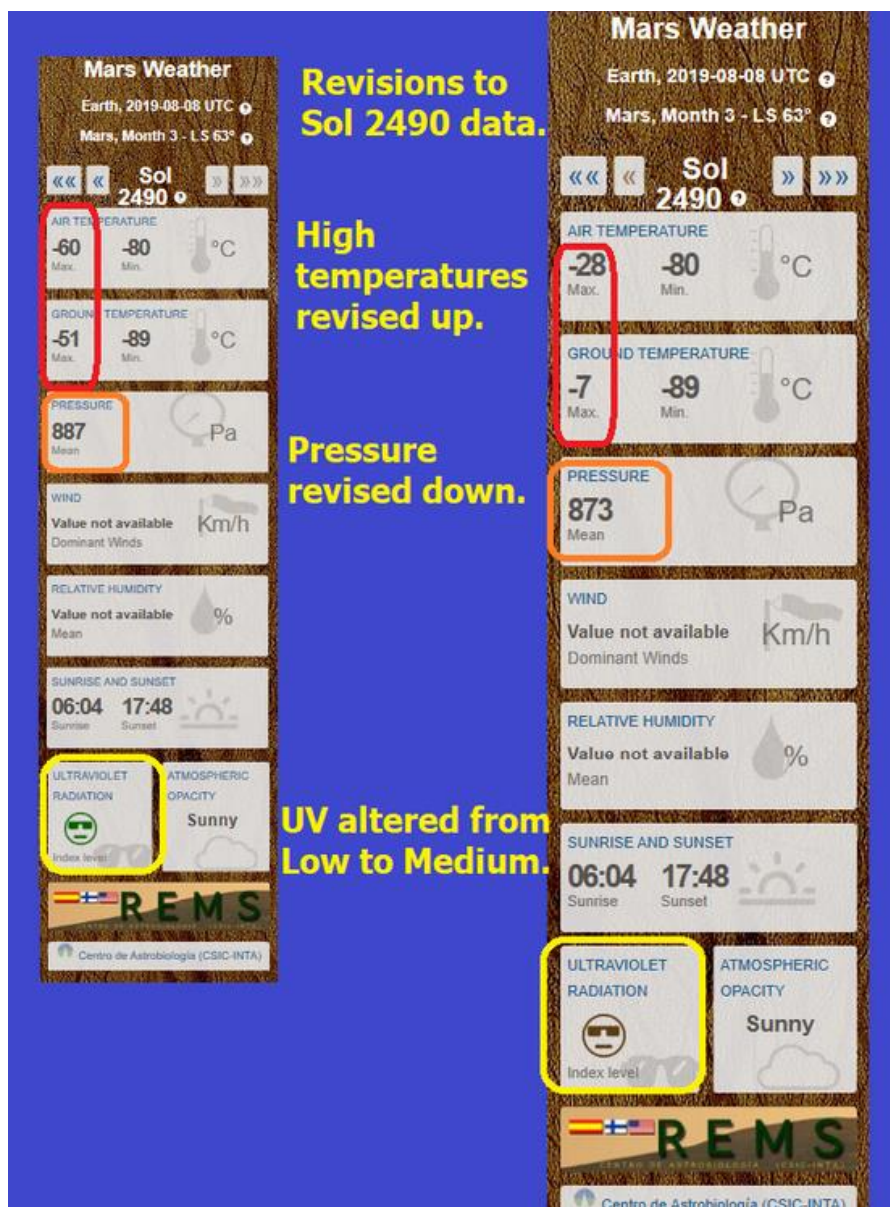


Figure 5 - Low UV reported again for MSL Sols 2532 and 2533.

