ANNEX R TO MARS CORRECT: CRITIQUE OFF ALL NASA MARS WEATHER DATA MSL Year 3 Spring Weather Data (LS 0 to 90, Sols 1,392 to 1,534)

This Annex reveals all Mars Science Laboratory (MSL) weather data for MSL's Mars Year 3 spring. 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.

On Table 1 column subjects and color codings are as follows:

Column A (Sol). The Martian day is about 39 minutes Column H shows temperature range divided by 40. longer than the terrestrial day.

Column B is solar longitude (Ls). MSL is in the Southern Hemisphere on Mars. The landing was at Ls see the ratio of cooling on a Mars sol to the typical 40 survey of the data immediately shows that this was 150 in winter. Ls 180 begins the spring there. Ls 270 °C cooling figure for Earth's deserts shown with a 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.

This allows us to compare terrestrial deserts with Gale Crater, Mars. How much cooling occurs at night we would expect similar heating or cooling to occur is related to the density of the atmosphere. Here we 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 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 <u>K</u>.

Column K. Drop in ground temperature from day to night.

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 M shows the decrease in temperature from the ground to the air at nights. If the data were valid over the set distance from ground to boom. A guick 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 N shows the pressure for the same Ls in MSL Year 1.

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

Column Q shows the Ls during Year 1.

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

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.

Α	В	С	D	Е	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	Т
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40		MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	VEAD 2	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																			(723)
1392	180	N/A											761						
																			1ST DAY OF
																			SPRING – NO DA
			7/6/2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	180	N/A	N/A	н	AVAILABLE
			170/2010	N/A	14/74	14/7	N//X	14/74	1477	14/74	14/74	14/73		14/7	.00	14/7			AGAIN UNTIL
																			SOL 1398 AT
																			LS 184
1393		N/A	7/7/2016						N/A			N/A					N/A		(724)
1394	181	N/A	7/8/2016										764	N/A			N/A		(725)
1395	181	N/A	7/9/2016	N/A	N/A	N/A	N/A	N/A	N/A			N/A	766	N/A	182	N/A	N/A	Н	(726)
1396	182	N/A	7/10/2016	N/A			N/A	N/A	N/A			N/A	766	N/A	182	N/A	N/A	Н	(727)
1397	183	N/A	7/11/2016	N/A													N/A	Н	(728)
1398	184	751	7/12/2016	3	-66	69	1.725	19	-62	-81	16	4	770	-19	184	N/A	Н	Н	(729 –
																			Pressure is too
																			low. Will JPL
																			alter the data?

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	Т
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	∆ GROUND TEMP DAY TO NIGHT	TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	A PRESSURE	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																			See Figure 1
1399	184	770	7/13/2016	1	-73	74	1.85	11	-74	-85	10	-1	770	0	184	N/A I	1	Н	(730) JPL/
																			REMS Team
																			puts the
																			pues ene
																			pressure back
																			on the
																			expected curve
1400	185	770	7/14/2016	3	-73	76	1.9	14	-73	-87	17	0	771	-1	185	754 H	1 1		(731)
1401	185	770	7/15/2016	-4	-74	70	1.75	14	-74	-88	18	0	773	-3	185	N/A I	1 1		(732)
1402	186	771	7/16/2016	-11	-75	64	1.6	11	-76	-87	22	-1	773	-2	186	N/A I	1	Н	(733)
1403	187	775	7/17/2016	-9	-75	66	1.65	11	-76	-87	20	-1	776	-1	186	N/A			(734)
																		t it was	This is the first
																		VH in MSL	This is the first
																			Very High UV
																		1	since Sal 040
																			since Sol 940

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	Т
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT	TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND		∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																			(463 sols
																			earlier on
																			March 29, 2015).
1404		774	7/18/2016								21								(735)
1405	188	775	7/19/2016	-2	-75	73	1.825	12	-78	-9 0	14	-3	776	-1	188	N/A		H bu t it was VH in MSL Year 1	(736)
1406	188	775	7/20/2016	-9	-76	67	1.675	14	-77	-91	23	-1	777	-2	188	N/A I		H bu t it was VH in MSL Year 1	(737)
1407	189	779	7/21/2016	-9	-74	65	1.625	3	-76	-89	22	-2	778	1	189	N/A I		H bu t it was VH in MSL Year	(738)
1408	190	779	7/22/2016	-10	-75	65	1.625	14	-76	-90	24	-1	779	0	189	N/A I		H bu t it was	(739)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
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	∆ GROUND TEMP DAY TO NIGHT	TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																	ļ	VH in MSL Year 1	
1409	190	781	7/23/2016	-9	-74	65 ·	1.625 1	13	-76	-89	22	-2	782	-1	190	N/A F	!		(740)
1410	191	782	7/24/2016	7	-72	79	1.975 1	14	-76	-90	7	-4	784	-2	191	N/A F	† 1	was VH in MSL Year 1	Warmest air temperature.
1411	191	782	7/25/2016	6	-72	78	1.95 8	3	-73	-81	2	-1	784	-2	191	N/A F	† , ,	H bu t it was VH in MSL Year 1	(742)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	Т
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	∆ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND		∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
1412	192	782	7/26/2016	4	-78	82	2.05	11	-73	-84	7	5	786	-4	192	N/A	1 , ,	t it was VH in	(743) 82°C Air Temperature range is a record high – probably an error.
1413	193	784	7/27/2016	5	-72	77	1.925	10	-72	-82	5	0	788	-4	192	N/A	† , ,	H bu t it was VH in MSL Year	(744)
1414	193	785	7/28/2016	7	-73	80	2.0	12	-72	-84	5	1	787	-2	193	N/A	† , ,	H bu t it was VH in MSL Year	(745)
1415	194	787	7/29/2016	8	-72	80	2.0	10	-71	-81	2	1	788	-1	194	N/A	1 , ,	MSL Year 1	(746) Warmest air Temp. since 9°C on Sol 782 (Ls 216).

Α	В	С	D	Е	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
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	∆ 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	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
1416	194	791	7/31/2016	5	-72	77	1.925	11	-71	-82	6	1	789	+2	194	N/A I		H bu (t it was VH in MSL Year 1	(747)
1417	195	791	8/1/2016	-8	-70	62	1.55	9	-71	-80	17	-1	791	0	195	N/A I		H bu (t it was VH in MSL Year 1	(748)
1418	196	793	8/2/2016	-9	-73	64	1.6	10	-71) -8 1	19	2	794	-1	195	N/A I		H bu (t it was VH in MSL Year 1	(749)
1419	196	793	8/3/2016	-7	-73	66	1.65	9	-69	-78	16	4	796	-3	196	N/A I		H bu (t it was VH in MSL Year 1	(750)
1420	197	793	8/4/2016	-8	-71	63	1.575	9	-68	-77	17	3	797	-4	197	N/A		H bu t it was	(751)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R		Т
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT		NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS		PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	VD	NOTES and Year 2 Sol for this LS
						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)					
																	N	H in ISL ear	
1421	197	797	8/5/2016	-9	-72	63	1.575	В	-69	-77	17	3	797	0	197	N/A H	t W V	it ras H in ISL ear	(752)
1422	198	800	8/6/2016	-9	-72	63	1.575	11	-69	-81	20	3	800	0	198	N/A H	t W V	it as H in ISL ear	(753)
1423	199	800	8/7/2016	-9	-71	62 ·	1.55	9	-71	-81	18	0	803	-3	198	N/A H	t W V	it as H in ISL ear	(754)
1424	199	803	8/8/2016	-8	-72	64	1.6	10	-70	-80	18	2	806	-3	199	N/A H	t W V	bu (it as H in ISL	(755)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
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	∆ GROUND TEMP DAY TO NIGHT		NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	VEAD 2	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																		Year 1	
1425	200	804	8/9/2016	-8	-72	64	1.6	10	-68	-78	18	4	806	-2	200	N/A I	1	M but of the state	(756)
1426	200	803	8/10/2016	- 6	-71	65	1.625	10	-69	-79	16	2	807	-4	200	N/A I		H bu t it was VH in MSL Year 1	(757)
1427	201	807	8/11/2016	8	-72	80	2.0 1	14	-69	-83	6	3	810	-3	201	N/A		H bu t it was VH in MSL Year 1	(758)
1428	202	808	8/12/2016	4	-72	76	1.9	24	-69	-93 9	20	3	809	-1	201	N/A		VH IN MSI	(759) Ground temp of +24 °C is a

	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
sc)L	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C		AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ 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	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS		PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
							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)					
																				record high.
																				Watch for
																				possible
																				alteration.
																				See Figures 2
																				and 3 below.
14	29 2	202	810	8/13/2016	4	-70	74 ·	1.85)	-71	-80	5	-1	810	0	202	N/A \	1	H bu t it was VH in MSL Year	(760)
14	30 2	203	810	8/14/2016	5	-69	74	1.85 9		-70	-79	4	-1	814	-4	203	N/A F	1	H bu t it was VH in MSL Year	(761)
14	31 2	204	811	8/15/2016	7	-69	76	1.9)	-68	-71	2	1	814	-3	203	N/A I	1	H but VH in MSL	(762)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH	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	∆ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																		Year 1	
1432	204	813	8/16/2016	7	-71	64	1.6	16	-71	-87	9	0	817	-4	204	N/A I	Н	H but VH in MSL Year 1	(763)
1433	205	818	8/17/2016	6	-70	76	1.9	14	-73	-87	8	-3	821	-3	205	N/A I		H but VH in MSL Year 1	(764)
1434	205	818	8/18/2016	0	-70	70	1.75	15	-75	-90	15	-5	820	-2	205	N/A I		H but VH in MSL Year 1	(765)
1435	207	823	8/19/2016	4	-71	75	1.875	17	-75	-92	13	-4	824	-1	206	N/A I		H but VH in MSL Year 1	(766)
1436	207	825	8/20/2016	4	-72	76	1.9	10	-71	-81	6	1	824	1	206	N/A I		H but VH in MSL Year 1	(767)
1437	207	821	8/21/2016	7	-71	78	1.95	10	-72	-82	3	-1	826	-5	207	N/A I		H but VH in MSL	(768)

	Α	В	С	D	Е	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
S	SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C		AIR TEMP RANGE °C/40	GROUND	CROTIND	∆ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	A I SAIVIE	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS		PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
							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)					
																		1	∕ear I	
1	438	208	823	8/22/2016	11	-68	79	1.975	14	-71	-85	3	-3	829	-5	208	N/A H	\ N Y	Ⅎ but(ͿͰͿ in ͶSL ϒear Ι	(769)
1	439	208	828	8/23/2016	5	-71	76	1.9	15	-75	-90	10	-4	829	-1	208	N/A H	\ N	/H in VISL Year	(770)
1	440	209	828	8/24/2016	4	-70	74	1.85	14	-73	-87	10	-3	836	-8	209	N/A H	\ N Y	H but (/H in MSL /ear I 1	(771)

	Α	В	С	D	E	F	G	Н	ı	J	K	L	M	N	0	Р	Q	R	S	Т
SO	L	~ ~	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C		AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT	TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
							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)					
144	11 2	210	828	8/25/2016	10	-74	84 2	2.1 1	14	-74	-88	4	0	835	-7	210	N/A F	!	H but VH in MSL Year 1	(772)
144	12 2	210	829	8/26/2016	0	-68	68	1.7	14	-73	-87	14	-5	838	-9	210	N/A F	ļ	H but VH in MSL Year 1	(773)
144	13 2	211	831	8/27/2016	7	-69	76	1.9	14	-72	-86	7	-3	838	-7	211	823 H		Н	(774)
144	14 2	212	833	8/28/2016	8	-69	77	1.925	14	-72	-86	6	-3	838	-5	211	841 H		Н	(775)
144	15 2	212	836	8/29/2016	1	-69						13	-3	841	-5	212	N/A H	l l	Н	(776)
144	16 2	213	841	8/30/2016	6	-70				-72	-87	9	-2	841	0	213	N/A H	l l	Н	(777)
144	17 2	214	841	8/31/2016						-75		11		846	-5		N/A H			(778)
144		214	841	9/1/2016				_				14		845			N/A H			(779)
144	19 2	215	841	9/2/2016	5	-71	76	1.9	13	-73	-86	В	-2	852	-11	215	N/A F	ļ	H but VH in MSL Year 1	(780)
145	50 2	215	842	9/3/2016	5	-69	74 ′	1.85	4	-73	-87	9	-4	849	-7	215	N/A F	i	M but it was	(781)

Α	В	С	D	Е	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	Т
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C		AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																		VH in MSL Year 1	
1451	216	842	9/4/2016	5	-71	76	1.9	13	-71	-84	8	0	854	-12	216	N/A		M but VH in MSL Year 1	(782)
1452	217	845	9/6/2016	5	-74	79	1.975	13	-71	-84	8	3	853	-8	216	N/A		M but it was VH in MSL Year 1	(783)
1453	217	850	9/7/2016	5	-73	78	1.95	13	-73	-86	8	0	857	-7	217	N/A		M but it was VH in MSL Year 1	(784)
1454	218	854	9/8/2016	3	-69	72	1.8	12	-71	-83	9	-2	858	-4	218	N/A	,	M but it was VH in	(785)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
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	∆ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	△ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																	`	MSL /ear	
1455	219	858	9/9/2016	-4	-70	66	1.65	16	-73	-89	20	-3	861	-3	218	N/A	 	M out it was /H in MSL /ear	(786)
1456	220	859	9/10/2016	-1	-69	68	1.7	13	-72	-85	14	-3	860	-1	219	N/A	 	M out it was /H in MSL /ear	(787)
1457	220	860	9/11/2016	-5	-69	64	1.6	13	-70	-83	19	-1	862	-2	220	N/A	 	M out it was /H in MSL /ear	(788)
1458	220	859	9/12/2016	-1	-69	68	1.7	13	-69	-82	14	0	862	-3	220	N/A	 	M out it was /H in MSL /ear	(789)

	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	Т
s	OL	~LS	PRESSURE Pa	EARTH	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	∆ GROUND TEMP DAY TO NIGHT		NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS		PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
							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)					
																			1	
1	459	221	861	9/13/2016	-2	-71	69	1.725	14	-70	-84	16	1	864	-3	221	N/A I		M but it was H in MSL Year 1	(790)
1	460	222	865	9/14/2016	-4	-70	66	1.65	13	-70	-83	17	0	867	-2	222	N/A I		M but it was VH in MSL Year 1	(791)
1	461	222	870	9/15/2016	-7	-69	62	1.55	13	-69	-82	20	0	873	-3	222	N/A I		M but it was H in MSL Year 1	(792)
1	462	223	871	9/16/2016	-5	-68	63	1.575	14	-70	-84	19	-2	877	-6	223	N/A I		M but it was	(793)

	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
so	L		PRESSURE Pa	EARTH	MAX AIR TEMP °C	MIN AIR TEMP °C		AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT		NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	YR	UV YR 2	NOTES and Year 2 Sol for this LS
							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)					
																		M	H in ISL ear	
146	63 2	224	871	9/17/2016	-1	-68	67	1.565	12	-69	-81	13	-1	874	-3	223	N/A H	bı W V M	ut it `as H in SL ear	(794)
146	64 2	224	871	9/18/2016	-6	-71	65	1.625	12	-69	-81	18	2	875	-4	224	N/A H	b w V M	ut it as H in ISL ear	(795)
146	55 2	225	870	9/19/2016	-3	-68	65	1.625	13	-70	-83	16	-2	877	-7	225	N/A H	b w V M	ut it as H in ISL ear	(796)
146	66 2	226	873	9/20/2016	-6	-67	61 -	1.525	12	-69	-81	18	-2	879	-6	225	N/A H	b w H	ut it as in ISL	(797)

	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
s	OL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C		AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT	CHANGE IN TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS		PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	VD	NOTES and Year 2 Sol for this LS
							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)					
																		Y 1	ear	
14	467	226	877	9/21/2016	-4	-69	65	1.625	13	-69	-82	17	0	883	-6	226	N/A F	b W H N	ut it vas l in ISL ear	(798)
14	468	227	879	9/22/2016	5	-70	75 ·	1.875 1	4	-69	-83	9	1	884	-5	227	N/A F	it W H M	as I in ISL ear	(799)
14	4 69	228	881	9/23/2016	1	-72	73	1.825 1	3	-71	-84	12	1	884	-3	227	N/A F	b W V N	ut it vas 'H in ISL ear	(800)
1	470 ː	228	879	9/24/2016	1	-70	71 °	1.775 1	2	-72	-84	11	-2	884	-5	228	N/A N	b W V N	ut it vas 'H in ISL ear	(801)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
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	∆ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND		∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	VP	NOTES and Year 2 Sol for this LS
						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)					
1471	229	880	9/25/2016	4	-71	75	1.875	12	-73	-85	8	-2	887	-7	229	N/A I	ļ	M but (it was VH in MSL Year 1	802)
1472	229	879	9/26/2016	5	-68	73	1.825	17	-73	-90	12	-5	888	-9	229	N/A I		M but (it was VH in MSL Year 1	803)
1473	230	881	9/27/2016	4	-67	71	1.775	15	-71	-86	11	-4	891	-10	230	N/A I	,	M but (it was VH in MSL Year 1	804)
1474	231	889	9/28/2016	2	-68	70	1.75	13	-69	-82	11	-1	893	-4	231	N/A I		M but (it was VH in MSL Year 1	805)
1475	231	890	9/29/2016	2	-72	74	1.85	13	-71	-84	11	1	893	-3	231	N/A I		M but (it was	806)

Α	В	С	D	Е	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
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	∆ 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	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																		VH in MSL Year 1	
1476	232	888	9/30/2016	2	-69	71	1.775	14	-73	-87	12	-4	892	-4	232	N/A		M but it was VH in MSL Year 1	(807)
1477	233	888	10/1/2016	0	-72	72	1.8	13	-72	-85	13	0	893	-5	232	N/A		M but it was VH in MSL Year 1	(808)
1478	233	887	10/2/2016	1	-68	69 -	1.725	12	-69	-81	11	-1	891	-4	233	N/A		M but it was VH in MSL Year 1	(809)
1479	234	890	10/3/2016	3	-66	69	1.725	9	-70	-79	6	-4	897	-7	234	N/A		M but it was VH in MSL	(810)

	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
S	OL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C		AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT	CHANGE IN TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS		PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
							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)					
																			'ear	
14	180 2	235	893	10/4/2016	1	-68	69 ·	1.725 1	10	-70	-80	9	-2	900	-7	234	N/A F	it v V N	/I but (t vas /H in /ISL /ear	(811)
14	181 :	235	893	10/5/2016	1	-70	71 -	1.775 1	11	-72	-83	10	-2	902	-9	235	N/A F	it V V N	vas /H in /ISL /ear	(812)
14	182 2	236	893	10/6/2016	2	-68	70	1.75 1	14	-72	-86	12	-4	904	-11	236	N/A F	it v V N	vas /H in /ISL /ear	(813)
14	183 2	237	892	10/7/2016	1	-68	69	1.725 1	13	-72	-85	12	-4	902	-10	236	N/A F	it v V N	t vas /H in //SL /ear	(814)

Α	В	C	D	Е	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
SOL	~L\$	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	∆ 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	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
1484	237	895	10/8/2016	4	-68	72	1.8	13	-71	-84	9	-3	905	-10	237	N/A		M but it was VH in MSL Year 1	[815]
1485	238	899	10/9/2016	3	-71	74	1.85	18	-72	-90	15	-1	908	-9	238	N/A		M but it was VH in MSL Year 1	(816)
1486	239	901	10/10/2016	-1	-71	70	1.75	12	-71	-83	13	0	913	-12	238	N/A		M but it was VH in MSL Year 1	(817)
1487	239	901	10/11/2016	-5	-68	63	1.575	14	-73	-87	19	-5	914	-13	239	N/A		M but it was VH in MSL Year 1	[818]
1488	240	902	10/12/2016	-6	-69	63	1.575	9	-72	-81	15	-3	913	-11	240	N/A		M but it was	(819)

F	. В	3 C	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
SOL	~L\$	S PRESSU Pa	EARTH	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	∆ GROUND TEMP DAY TO NIGHT		NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																	ļ	VH in MSL Year 1	
1489	240	903	10/14/2016	-8	-68	60	1.5	12	-72	-84	20	-4	910	-7	240	N/A F	i N	M but (it was VH in MSL Year 1	(820)
1490	241	904	10/15/2016	-10	-66	56	1.4 1	13	-74	-87	23	-8	910	-6	241	N/A F	i N	M but (it was VH in MSL Year 1	(821)
1491	242	906	10/16/2016	-8	-69	61	1.525 1	14	-73	-87	22	-4	911	-5	242	N/A F	 	M but it was VH in MSL Year 1	(822)
1492	242	921	10/17/2016	-10	-68	58	1.45 1	14	-73	-87	24	-5	912	+9	242	N/A H	 	but it	(823) Unusually high

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
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	∆ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LO IN MOL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																		1	pressure spike - see Figure 4 and next line
1492 revised		910	10/17/2016 No other changes from the line above except Pressure change from last year.		-68	58	1.45	14	-73	-87	24	-5	912	-2	242	N/A ł	i V	MSL Year 1	(823) Unusually high pressure of 921 Pa was revised down to 910
1493	243	904	10/18/2016	-11	-70	59	1.475 1	12	-75	-87	23	-5	914	-10	243	N/A i	i	M but it was VH in MSL Year	(824)

	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	Т
so	DL	~LS	PRESSURE Pa	EARTH	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT		NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
							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)					
149	94	244	904	10/19/2016	-10	-68	58	1.45	14	-73	- 87	24	-5	914	-10	243	N/A I	b V V N	out it vas /H in MSL /ear	(825)
149	95	244	903	10/20/2016	-7	-71	64	1.6	14	-75	-89	21	-4	914	-11	244	N/A I	it V V N	t vas /H in /ISL /ear	(826)
149	96	245	906	10/21/2016	-8	-72	64	1.6	14	-74	-88	22	-2	911	-5	245	N/A I	it V V N	t vas /H in /ISL /ear	(827)
149	97	246	909	10/22/2016	-5	-68	63	1.575	13	-74	-87	18	-6	914	-5	245	N/A I	it v V N	t vas /H in /ISL /ear	(828)
149	98	246	897	10/23/2016	-33	-56	23	0.575 -	27	-61	-88	6	-5	923	-26	246	914 L		- hen evis	(829) MANY

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH	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	∆ GROUND TEMP DAY TO NIGHT	TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																		ed to M but	ANOMALIES -
																		it was VH in	SEE FIGURE 5
																	ļ	MSL Year	AND WATCH
1498	246	907	10/23/2016	-9	-68	59	1.475	1 <mark>3</mark>	-72	-85	22	-4	923	-16	246	N/A	1	L .	FOR REVISIONS (829) AS
revised																	ļ	ea to	PREDICTED
																	į.	M but it was	ABOVE, THE
																		VH in MSL	MANY
																		Year 1	ANOMALIES
																			WERE REVISED
																			-SEE FIGURE 5.
1499	247	903	10/24/2016	-2	-69	67	1.675	11	-75	-86	13	-6	918	-15	247	N/A \	į	M but it was	(830)
																	Ì	VH in MSL	
																		Year 1	

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	Т
SOL	~LS	PRESSURE Pa	EARTH	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	∆ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND		∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
1500	248	903	10/25/2016	-4	-70	66	1.65	10	-71	-81	14	-1	920	-17	247	N/A		M but it was VH in MSL Year 1	(831)
1501	248	903	10/26/2016	3	-69	72	1.8	15	-72	-87	12	-3	924	-21	248	N/A		M but it was VH in MSL Year 1	(832)
1502	249	928	10/27/2016	-58	-63	5	0.125	52	-68	-16	6	-5	910	+18	248	N/A	L	L chang ed to H but it was also H in MSL Year	(833) MANY ANOMALIES – SEE FIGURE 6 AND WATCH FOR REVISIONS)
1502 revised	249	907	10/27/2016	0	-69	69	1.725	10	-73	-83	10	-4	918	-11	249	N/A		(also H Year 1)	(834) Yes, Sols 1502 was revised.

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	Т
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	∆ GROUND TEMP DAY TO NIGHT		NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	PRESSURE AT SAME LS IN MSL YEAR 2	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																			See Figure 5
1503	250	909	10/28/2016	3	-70	73	1.825	12	-72	-84V	15	-2	917	-8	250	N/A	Н		(835)
1504	250	910	10/29/2016	-1	-69	68	1.7	12	-72	-84	11	-3	916	-6	251	N/A	Н	H (also	(836) PERIHELION
1505	251	906	10/30/2016	2	-69	71	1.775	12	-73	-85	10	-4	916	-10	251	N/A		M (Year 1 was H)	(837)
1506	252	907	10/31/2016	-1	-71			15			16		917				Н	N/A (whic h was chan ged from L), Year 1 was H)	(838)
1507	252	907	11/1/2016	-1	-70	69	1.725	14	-74	-88	16	-4	917	-10	253	N/A		N/A (whic h	(839)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C		AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT	TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																	c g fi L Y 1 w F	vas I)	
1508	253	907	11/2/2016	-2	-70	68	1.7	16	-70	-86	18	0	913	-6	253	N/A V	(the work of the control of the cont	whic was han jed rom _),	(840)
1509	254	910	11/3/2016	3	-70	73	1.825	16	-73	-89	13	-3	914	-4	254	N/A F	I N (v c g fi	I/A (which was whan yed rom -), //ear	(841)

	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
S	OL	~LS	PRESSURE Pa	EARTH	MAX AIR TEMP °C	MIN AIR TEMP °C		AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT	CHANGE IN TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS		PRESSURE YEAR 1 BEFORE REVISION	YR	UV YR 2	NOTES and Year 2 Sol for this LS
							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)					
																		w H	as)	
1	510 2	254	908	11/4/2016	2	-70	72	1.8	16	-73	-89	14	-3	914	-6	255	N/A F	Y 1	ear	(842)
1	511 2	255	908	11/5/2016	0	-77	77	1.925 1	4	-75	-89	14	2	916	-8	255	N/A V	(v h w cl gr fr L) Y	vhic ras han ed om), ear	(843)
1	512 2	255	908	11/6/2016	0	-78	78	1.95 1	16	-75	-91	16	3	917	-9	256	N/A F	Y 1	ear ((844)
1	513 2	256	906	11/7/2016	-1	-74	73	1.825	14	-77	-91	15	-3	920	-14	257	N/A F	I M Y 1	ear	(845)

	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
sc	DL	~LS	PRESSURE Pa	EARTH	MAX AIR TEMP °C	MIN AIR TEMP °C	PANCE	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT		NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS		PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
							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)					
15	3 14 :	257	907	11/8/2016	0	-73	73 1	1.825	14	-75	-89	14		925 (High for Years 1 and 2)	-18	257	N/A F	Y 1 w	'ear	(846)
15	15	257	906	11/9/2016	3	-76	79 1	1.975	19	-75	- 94	16	1	918	-12	258	N/A F	Y 1 w	'ear	(847)
15	i16 :	258	909	11/10/2016	4	-70	74 1	1.85	20	-75	- 95	16	-5	918	-9	258	N/A F	Y 1 w	'ear	(848)
15	3 17 :	259	911	11/11/2016	2	-76	78 1	1.95	11	-75	-86	9	1	918	-7	259	N/A F	Y 1 w	'ear	(849)
15	18	259	909	11/12/2016	- 8	-78	70 1	1.75	12	-75	-87	20	-3	918	-9	259	N/A F	(t h w c g fi L	whic vas han jed rom .),	(850)

	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
sc	DL	~LS	PRESSURE Pa	EARTH	MAX AIR TEMP °C	MIN AIR TEMP °C		AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ 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	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	VD	NOTES and Year 2 Sol for this LS
							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)					
																			/as l)	
15	19	260	906	11/13/2016	4	-72	76	1.9	16	-76	-92	12	-4	919	-13	260	N/A	H N (v h w c g fi L Y 1 w	l/A (whic //as han ed rom), (ear	(851)
15	20	261	905	11/14/2016	-2	-73	71	1.775	16	-76	-92	18	-3	916	-11	261	N/A F	Y 1	ear as	(852)
15	21	261	905	11/15/2016	-1	-71	70	1.75	17	-75	-9 2	18	-4	913	-8	262	N/A F	I N (v h c	I/A (whic	(853)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH	MAX AIR TEMP °C	MIN AIR TEMP °C	PANCE	AIR TEMP RANGE °C/40	MAX GROUND TEMP °C	GROUND	∆ GROUND TEMP DAY TO NIGHT	DAYTIME CHANGE IN TEMP °C AIR TO GROUND	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																	1	-), Year I was H)	
1522	262	905	11/16/2016	-2	-71	69 1	1.725	14	-74	-88	16	-3	910	-5 2	262	N/A F			(854)
1523	263	905	11/17/2016	<mark>-10</mark>	-77	67 1	1.675	4	-76	-90	24	1	912	-7	263	N/A F	(1 0 0 1	N/A which was chan ged from -), Year	(855)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH DATE	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	RANGE	MAX GROUND TEMP °C	MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT	TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND	LS IN MSL	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																		was H)	
1524	263	904	11/18/2016	-4	-76	72	1.8	14	-75	-89	18	1	912	-8	264	N/A	Н		(856)
1525	264	902	11/20/2016	-2	-74	72	1.8	14	-75	-89	16	-1	911	-9	264	N/A	Н		(857)
1526	265	900	11/21/2016	-2	-72	70	1.75	13	-74	-87	15		913 (was 920 in Year 1)	-13	265	N/A	VH		(858)
1527	265	900	11/22/2016	-6	-71	65	1.625	12	-75	-87	18	-4	915	-15	266	N/A	Н		(859)
1528	266	<mark>.891</mark>	11/23/2016	-4	-67	63	1.575	12	-73	-85	16	-6	916	-25	266	N/A		Year 1 was N/A	(860) 891 Pa is a big Δ from Year 2

Α	В	С	D	Е	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
SOL	~LS	PRESSURE Pa	EARTH	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	RANGE		MIN GROUND TEMP °C	∆ GROUND TEMP DAY TO NIGHT	TEMP °C AIR	NIGHTTIME CHANGE IN TEMP °C AIR TO GROUND		A PRESSURE	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																			(916 Pa) and Yr 1 (921 Pa).
1529	267	900	11/24/2016	3	-73	76	1.9 1	11	-77	-88	8	-4	917	-17	267	N/A I		M, Year 1 was N/A	(861)
1530	267	899	11/25/2016	-4	-71	67	1.675	12	-77	-89	16	-6	917	-18	268	N/A I		M, Year 1 was N/A	(862)
1531	268	900	11/26/2016	- 10	-76	66	1.65	14	-78	-9 2	24	-2	916	-16	268	N/A I		H, Year 1 was N/A	(863)
1532	268	900	11/27/2016	-3	-72	69	1.725 1	13	-76	-89	16	-4	914	-14	269	N/A I		H, Year 1	(864)

Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S	T
SOL	~LS		EARTH	MAX AIR TEMP °C	MIN AIR TEMP °C	AIR TEMP RANGE °C	AIR TEMP RANGE °C/40	GROUND	MIN GROUND TEMP °C	∆ 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	∆ PRESSURE YEAR 3 TO YEAR 2 SAME LS	~LS Year 2	PRESSURE YEAR 1 BEFORE REVISION	UV YR 3	UV YR 2	NOTES and Year 2 Sol for this LS
						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)					
																		was N/A	
1533	269	896	11/28/2016	-4	-72	66 ·	1.7	13	-76	-89	16	-4	913	-17	270	N/A ł	,	M, Year 1 was H	(865)
1534	270	898	11/29/2016	-2	-73	71	1.775	13	-76	-89	15	-3	911	-13	270	N/A I	,	Year 1 was H	(866) MSL first day of summer