



VISIONA

Tecnologia Espacial

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SGDC-1

IN-ORBIT HEALTH REPORT

February, 2021



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TLBANX202200720A

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2 SUMMARY

This report refers to the period after the interval covered in the previous report, dated May 15th, 2020.

Accordingly, the period covered in this report begins on March 15th, 2020 and ends on January 31st, 2021.

During this period the spacecraft has performed in accordance with specifications without experiencing any major anomalies or loss of unit.

3 PAYLOAD

The payload configuration is the nominal one during this period covered by this report.

Payload performances are as expected.

4 BUS SUBSYSTEMS

4.1 THERMAL

No out of limits has been triggered on the satellite on the thermal subsystem.

4.2 STATION KEEPING

Number of maneuvers performed in NM between March 15th, 2020 and January 31st, 2021:

South maneuvers:	9
North maneuvers:	14
West maneuvers:	46
East maneuvers:	0

No abnormal behavior that may generate unexpected propellant consumption has been noticed during maneuvers.

SGDC-1 mass at the beginning of the analyzed period was 3384.63 kg:

- Dry + He:	2459.89 kg (15/03/2020)
- Oxidizer:	579.76 kg
- Fuel:	344.98 kg



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At the end of the analyzed period, the mass was 3328.69 kg:

- Dry + He: 2459.89 kg (30/01/2021)
- Oxidizer: 545.01 kg
- Fuel: 323.79 kg

The total propellant spent during this period was **55.94 kg**.

Using ISP's and prediction model from the last manufacturer report and without considering a station change the current End of Lifetime prediction is March 2035.

4.3 POWER

Power subsystem behavior is as expected.

Battery performances during eclipses' season is nominal ever since.

Solar array performance is nominal.

Power budget provided at beginning of life is still applicable as no anomaly occurred on batteries or solar arrays.

4.4 TELEMETRY COMMAND AND RANGING

TCR subsystem behavior is as expected.

4.5 ON BOARD PROCESSORS

No patch loaded on board: no software modification in-flight.

Onboard processors behavior is as expected (no anomaly reported).

4.6 GROUND OPERATIONS

Ground operations were performed on regular basis, without any issues.

5 GENERAL

During the period the Brasília Control Center was successfully migrated from the temporary to the final facility and formally accepted by October 2020.




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6 CONCLUSIONS

Based on the information presented and considering the last Health Report (attached) Visiona considers that the satellite is fully operational and with all parameters as expected.

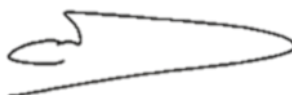
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