



5 January 2021 (report covers data release for 1-30 Sept)

Report Version	2	L2 ground processing software version:	1.6
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Data Summary

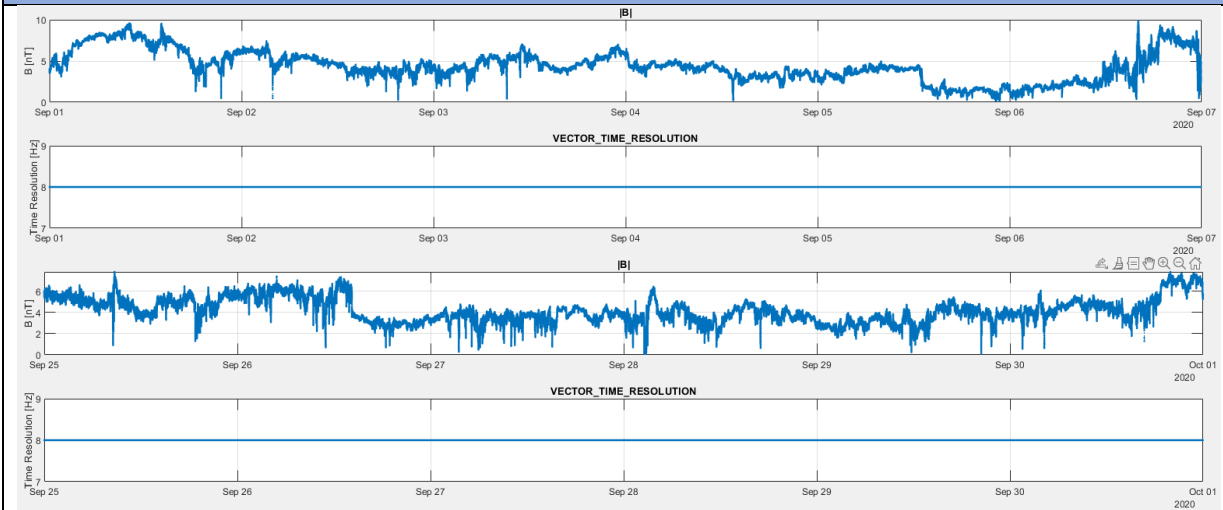
The operational philosophy of the MAG instrument was to be on throughout the period. There was a disruption to operations due CSW update on 6 September. MAG was rebooted following this shutdown on 18 September, however the sensors were at a higher temperature than nominal, and the cleaning of the heater signal has not yet been optimised. The sensors were returned to -90C on 24/9.

This release covers data for 1-6 September and 25-30 September.

We intend to release 19-24 September at a later date, when the heater signal during this period is better understood.

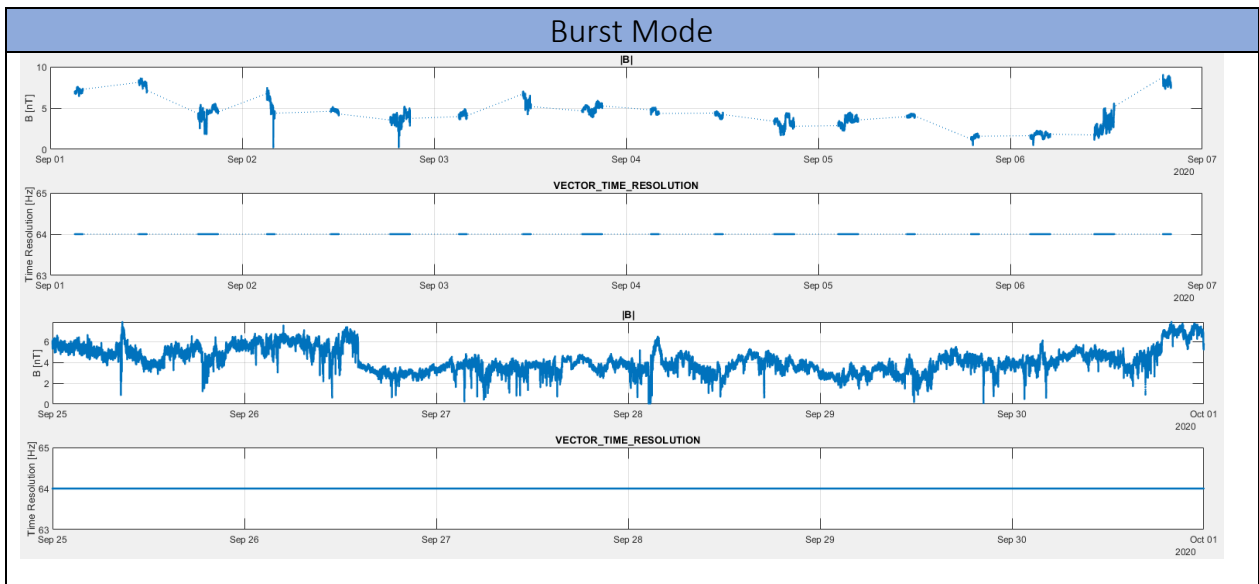
The spacecraft started September at 0.91AU and finished at 0.98AU.

Normal Mode



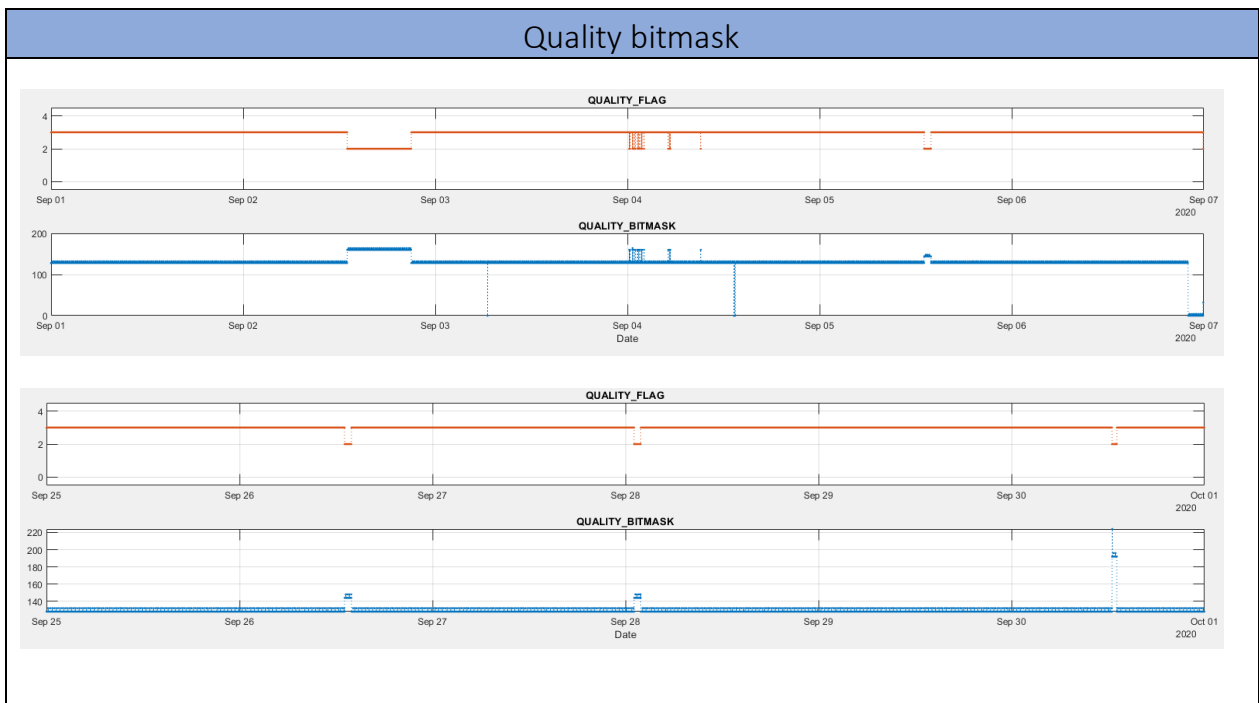
For whole month, MAG was on with 8Hz cadence normal mode data returned, for exceptions see below.

Operations	1-6 Sep 25-30 Sept	Cruise phase throughout month
Operational Events of Note	6 Sept 23:59:57	MAG power down for CSW update
	18 Sept 09:22	MAG power on after CSW update
	24 Sept	Set MAG sensor heater set points to -90C
Data Gaps	No data gaps within range specified	



Coverage is not continuous. Data, where available, at 64 Hz cadence.

	From	To	
Coverage	1/09	6/09	4.5 hours per day 64 Hz
	25/09	30/09	24 hours per day 64 Hz

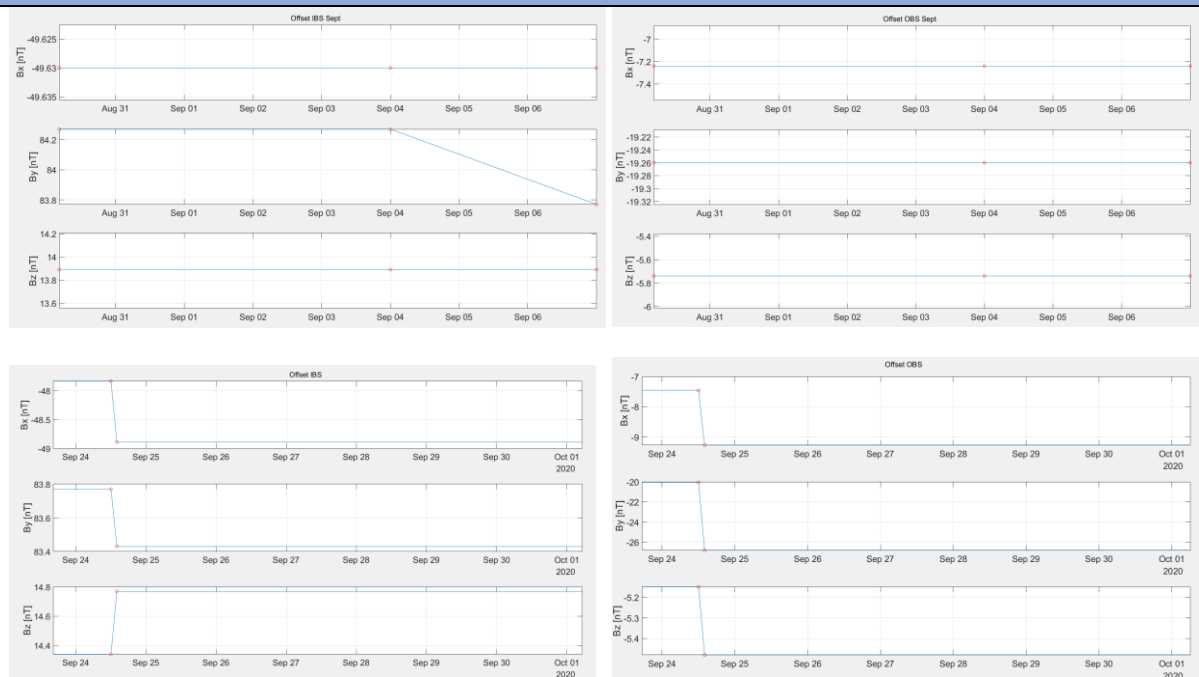


Quality bit mask events

- | | |
|---|--|
| <p>1. SC events which disturb the field</p> | <ul style="list-style-type: none"> • Thruster firings • Solar array lubrications (solar array is moved 15 degrees, then returned to original position) • Solar array movements (solar array angle is changed, and then remains at new angle due to sun-SC distance thermal constraints) |
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2. SC related issues	No particular issues
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Offset



1-6 Sept:
 OBS offset remains constant whereas IBS offset changes linearly in y from 4 Sept to 6 Sept.
 These offsets have been quantified and removed from the L2 data.

Offset	Date	OBSX	OBSY	OBSZ	IBSX	IBSY	IBSZ	
47	30/08/2020 04:19	-7.24	-19.26	-5.74	-49.63	84.27	13.89	After SA MOVEMENT
47	03/09/2020 23:59	-7.24	-19.26	-5.74	-49.63	84.27	13.89	Until end of 3rd Sept
47	04/09/2020 00:00	-7.24	-19.26	-5.74	-49.63	84.27	13.89	From start of 4th Sept
48	06/09/2020 23:59	-7.24	-19.26	-5.74	-49.63	83.77	13.89	Power off due to software upgrade
60	19/09/2020 00:00	-7.45	-20.05	-5.15	-47.83	83.77	14.34	Power on after software upgrade
60	24/09/2020 12:00	-7.45	-20.05	-5.15	-47.83	83.77	14.34	switch off for reboot
61	24/09/2020 14:00	-9.27	-26.82	-5.48	-48.89	83.43	14.77	Switch on
61	01/11/2020 18:56	-9.27	-26.82	-5.48	-48.89	83.43	14.77	Will be changed as offsets improve