

OBSERVATORY SYSTEMS EVENT LOG

This document is intended to alert the CFHT science community to potentially important events at the observatory that could have a direct impact on science data and instrument availability. The log is not intended to be all inclusive nor very detailed - events that occupy staff time, but do not directly affect data quality or instrument availability will not likely show up here. Nor will the details, although we will provide links to further information if it is available. Roughly one year of history will be maintained in this file. Older entries will be available as an archive. Ongoing issues which have not been resolved will be noted as progress is made or if more than 2 weeks has passed an entry will be made to indicate the continuing nature of the problem or condition.

****Last update highlighted**

Telescope and facilities

Date	Issue
01/25/20	**Telescope Hydraulic system update: The hydraulic system has been repaired and the telescope is back online as of 25 January. This is an interim repair of the existing system. A permanent repair will include a new hydraulic power unit to be delivered and installed in early 2021.
01/10/20	Telescope Hydraulic system update: The hydraulic system remains down, making telescope inoperable for the immediate future. Engineering staff are working on two solutions in parallel. First is an interim solution to put in a temporary repair on the existing hydraulic system in order to get us back on sky as soon as possible. If this is successful it will likely take another 1-2 weeks to implement. The second solution is a permanent solution which requires us to replace the entire hydraulic system with the new modern engineered solution. We have gone out for bid with several manufacturers started receiving quotations for the solution. This solution will take 6-12 weeks to implement.
12/18/19	Telescope Hydraulic system failure on December 13 2019. As of Dec 18 2019 the system is still down. Engineering staff are troubleshooting the problem and will update as soon as a likely return to service date is available. Currently Spirou is on the telescope and able to take sky spectra with the telescope parked, generating telluric line calibration data.
11/28/19	Dome encoder failure, 3 hours lost on MegCam run. This is known and ongoing problem, Engineering is implementing a new design to replace this 40-year-old encoder system.

10/07/19-08/23/19	12 ton crane failed, taken out of service, repaired and back in service on 23 August, after extensive repairs.
21/06/19	12 ton crane failed, taken out of service, repaired and back in service on 30 June.
30/04/19	12 ton crane observed to slip, taken out of service, repaired and back in service on 14 May.
18/04/16	Dome shutter full open restricted by 18 inches – response to unidentified noise just past this position.
14/04/16	f/8 load cells failed – reports of small amounts of triangular images
02/12/15	f/8 triangular images appear to be solved - regulator and load cell data
02/12/15	Triangular images continue during Nov/Dec Espadons run
27/10/15	f/8 triangular images solved?
30/09/15	f/8 secondary support – imperfect images at Cassegrain focus Criticality - moderate

MegaCam

Date

Issue

12/22/20	**Megacam S-link has been upgraded to the new Gig-E-based communications cards. These have been extensively tested and show no degradation in noise characteristics and are essentially transparent from a user standpoint.
08/27/19	Megacam Slink Error, lost 24 minutes, error repaired
05/27/19	Shutter mechanism fault. MegaCam taken offline on 27/05/19. Emergency repairs were implemented and MegaCam was returned to service on 30/5/2019
6/7/18	filter mechanism fault, filter stuck in the beam. MegaCam taken off the telescope, repair and routine maintenance scheduled for the week of 7/10. Expected return to service is 16/7/18
1/1/17	fits header exp end time off by 1.5 sec; start off by up to 6 secs
1/1/17	MegaCam FAST installed for science operations
9/1/16	MegaCam back in operations – slave controller working
22/7/16	MegaCam slave-side CCD controller noisy – Camera down
8/12/15	MegaCam controller power supply changed – noise issues solved
3/12/15	Changed readout amp for all CCDs and higher noise on some chips at start of run
October/15	MegaCam annual teardown / maintenance – new filter rollers
30/09/15	no issues

WIRCam

Date

Issue

19/09/17	WirCam repaired and back in service
05/09/17	WIRCam has experienced a problem with one of the filter wheel mechanisms. The remaining 5 nights of the current run have been

	cancelled and replaced by Espadons. WIRCam will be down at least until the next run (29 September). Updates will be forthcoming.
03/10/17	WIRCam has disassembled, the filter wheel was serviced and then reassembled. WIRCam has been reinstalled on the telescope for the run beginning 29 September and fully checks out. Problem solved.
22/04/16	Vacuum leak repaired and WIRCam back on the sky
15/04/16	Vacuum leak while on telescope. WIRCam down until further notice
25/11/15	Semesters 15A and 15B have been reduced using the new non-linearity corrections and new flat field scaling normalization. Details on WIRCam web page

Espadons / GRACES

Date	Issue
20/6/18	Espadons Camera focus fault. Intermittent focus stage failure. Decision to operate at fixed focus until system repair can be implemented (expected repair date the week of 10/7/18)
25/04/17	Cosmetic issues noticed on Espadons detector. No apparent impact to data quality.
2/1/17	CCD 2-amplifier readout mode released for science operations
2/10/15	Beam obscuration on Cass unit ADC removed – likely started in July Criticality – high – discovered and repaired Oct 2, 2015
30/09/15	no issue
06 /07/15	Grating clamp caused 27 pixel spectrum shift along dispersion Criticality – high – discovered and repaired prior to 07 run

SITELLE

Date	Issue
08/27/19	**Sitelle field lenses have been replaced to improve image quality and spurious (alpha particle) counts. The new field lenses introduce a slight change to the distortion terms and plate scale of Sitelle's image plane.
xx/05/16	- mottled image problem solved with cover on ref laser beam
08/02/16	- mottled background of a few ADCU visible on Camera1 under review Criticality – moderate -ME variation with path difference under review Criticality – moderate -IQ at field corners degraded (elongated) under review Criticality – low
	Some aspects of SITELLE operations remain under technical verification Science commissioning completed
30/09/15	Camera optics returned to U Laval for evaluation – poor images seen on upper 20% of fields. SITELLE remains in technical commissioning.

Criticality – high

Pipelines and data products

Date	issue
30/09/15	no issue

