**Tasks for November run:**

**Daytime**

*WFS*

---WFS closed loop test with cal source

--IM aquisition & closed loop test with cal source if new IM is needed

--TT system IM recording

--Patrol camera IM rotation: theoretical change

--SX WFS cable duct cutting

*SW:*

--starting up machines on 23rd

--AO loop into Arbitrator implementation

---Truth sensing: mechanism to modify the slope offset vector implementation

--BCU disconnect: test with network load, sniff traffic

--LM thermocouples onto Zabbix

*LUCI*

--get focus right. Measurement of FLAO stage position vs. LUCI focus stage

*Laser system day*

--laser system check. Parameters into SVN

--periscope loop precision test and optimization

--periscope loop optimization for differential LGS positioning.

*Cal unit:*

--swing arm onto network, prepare for remote operation

*General*

--microstep drive implementation into LM1 MoCon

--Conversion of SW units to adopt the microstep LM drive

--MOCON removal (after the run) (JZ)

--SX pzt controller test and removal (after the run) (JZ)

--LM thermocouples characterization, fixing (JZ)

--Inventory of shelfs and spares (JZ)

--removal of aircraft cameras if needed. Checking if the container could be used for an ‘ARGOS Mats’ inspection of Tbad positions, cabling planning.

*Telescope position needs:*

the telescope position needs may change by discussion on a daily basis. Not all circumstances can be foreseen in advance!!

--Monday 24th morning: telescope on Horizon for WG

--Saturday 29th early afternoon: thermocouple check, telescope on Horizon ~2 hours

--else: telescope on zenith with calibration source deployed during day. Possibly dark in the dome.

**nighttime**

*LGS pre-acquisition*

--DX LGS position on sky. Launch lasers and check on WFS/ MATS the LGS position.

--adjust LM1. If too far off, adjust LM2!! This requires then to tilt the telescope and reach manually at LM2

*LM deformation compensation*

--record thermocouples LM1/2 DX, compensator positions

--test compensator. Systematic measurement of LGS size/ elongation on WFS/ elongation on patrol camera vs. compensator position.

*LGS automatic acquisition*

--patrol cam 'move into bucket' testing. LM1 first.

--Patrol camera IM w. LM1 rotation: measure. Change if required.

--patrol cam quad cell loop IM generation, loop testing.

--LM1 precision testing/adjustment. Microstep movement testing.

--periscope loop test for differential LGS positioning.

--recording and fixing of default laser periscope and delay parameters.

--If LM1 precision is insufficient: LGS tracking with pupil mirror implementation & offload to LM1

--Global LM flexure measurement. Snapshot of LM pos and tel position while an object is followed

*LGS focus optimization*

--measure LGS spot size on WFS while adjusting the laser uplink focus

----if out of range change lens position manually!!!

--measure LGS focus term/ spot size with adjusting the global pulse delay

--measure LGS focus term/ spot size with adjusting the ASM focus.

----find minimum in above parameter space....

*WFS LGS characterization*

--measure Pockels cell performance on LGS spots

--measure spot position jitter open loop/ closed jitter loop

--measure pupil position open/ closed loop

--high order blobs from hologram: removing subapps from reconstructor required?

*LGS closed loop testing*

--characterization of closed loop performance

--testing of ASM offload to telescope

--testing of different re-constructors

--optimize slope offsets on sky with FLAO closed loop

--Mixed mode operation ARGOS & FLAO test. TT from FLAO

--Resulting image characterization on LUCI

*TT system tests*

--measure flux on TT APDs on a star

--closed loop test

*Vibration compensation setup*

--open loop WFS recording, analyze spectrum, amplitude

--close loop....optimize and

*LUCI recordings*

--JHK imaging of clusters. Open / closed loop check.

--spectral transmission of dichroic: longslit spectrum w/wo dichroic (twilight ok?)

--calibrations: skyflats twylight, darks. Standard stars?

*Main nighttime responsibilities:*

Aviation Station - Gustavo/Michael

Laser Station - Wolfgang

WFS Station/ TT - Gilles

FLAO Station - Alfio

LUCI Station - Sebastian (Wolfgang)

Snapshot Reduction - Lorenzo/Tomasso

The Bookkeeper - Marco

El Chefe de cuisine - Julian

The coordinators - Sebastian/Simone/(Wolfgang)