

LBT Observing Log: 2025 Dec 19 UT

Observers: Alex Becker

Partner Observer: Dominick Rowan, Tawny Sit, Lucy Lu

Telescope Operator: Josh Williams

Plan:

Start with LBC J2306 program (WD pulsar)

Swap to PEPSI ~UT 2 – UT 6

Swap to SHARK for two targets

If seeing is good, go to LBC for monitor targets

If seeing is not so good, go to LUCI for SCAT targets

PEPSI target plan:

~~BHBinaries/524993029624315904 (~1.1 hours)~~

~~ND_J0053 (~1.38 hours) (also needs telluric HIP 5518)~~

Swap to SHARK-VIS

UT ~7:30 going to LUCI because seeing is variable

~~SCAT-LUCI / 2025yla (1.5 hours)~~

~~SCAT-LUCI Telluric HD 73331 in both set ups~~

SCAT-LUCI / 2025mve (2.6 hours) – couldnt find the target!

~~SCAT-LUCI 23ufx~~

Back to PEPSI to fill out the rest of the night

~~MWAbund/J0942+4751~~

~~MWAbund/J0948+4617~~

~~MWAbund/J1000+3505~~

~~MWAbund/J1015+3806~~

~~MWAbund/J1035+3521~~

~~MWAbund/J1034+3051~~

~~MWAbund/J1055+0254~~

Summary:

LBC IQ plot:

http://people.lbto.org/~cveillet/dms/lbciQ_raw_20251219.png

PEPSI log:

<https://drive.google.com/file/d/1yuQfxnZ106H7nnvx0qAliAeFXEevNowd/view?usp=sharing>

Issues:

Weather:

Start of night: Some clouds, T 5.4C, RH 38, Wind 10 m/s @ 312, Seeing 0.8"

Overview:

23:18 Turning on LBCs

23:23 LBC 2bias bino checkout

23:26 LBC 25 bias bino

00:16 Opening

LBC

00:30 We are having a beautiful sunset with some clouds. Not good for sky flats



01:14 12 deg twilight

ND_J2306

00:59 Preset to co-pointing field

01:02 dohybrid

It seems to be stuck after Compiled module: FPIA_SERVICE_REQUEST

It doesn't give any error message, but has something to do with TMS. -bypassstms solved the issue. Not dealing with it tonight, as we will only use LBCs for ~40 minutes.

nc dms.mountain.lbto.org 39999: Service seems to be running

01:10 dohybrid -bypassstms

01:18 Co-pointing check

01:21 Starting science script j2306_science.ob

IQ 0.6"-0.7", DIMM 0.8"

02:08 Reconfig to PEPSI

PEPSI

BHBinaries

524993029624315904/2MASS J0111+64

Seeing is now variable between 1.3 and 1.8

02:39 Preset

02:41 Starting exposure

SNR CD3: 71, CD5: 129

CD2: 63, CD4: 89

ND_J0053 IRAS 00500+6713

04:07 Preset

04:12 Starting exposure. Not enough light for the left WFS

SNR CD1: 66, CD4: 78

SNR CD2: 66, CD6: 101

HIP 5518

05:21 Preset

05:23 Starting exposure

05:25 Switching over to SHARK-VIS

SHARK-VIS

HIP20430B

SIMBAD is down. We can't query target in IIF. Manually entering the information

05:38 Preset

Companion clearly visible

HIP 35550

06:20 Preset

06:41 Simbad is back online

No obvious companion

HIP 43903

07:04 Preset

07:20 We are done with SHARK, reconfig to LUCI

Companion clearly visible

LUCI

07:22 LUCI 1&2 init all

OSU_SCAT 2025yla

G200 JHK

07:38 Preset

L1: xshift 0.21", yshift 6.2328"
L2: xshift -1.4006", yshift 6.3891

OSU_SCAT telluric_2025yla

09:01 Preset

OSU_SCAT telluric_2025mve

09:24 Same telluric star, just changing Grating and Filter and skipping acquisition

OSU_SCAT 2025mve

09:32 Preset

We cannot find the target. Moving on to another object

OSU_SCAT 2023ufx_imaging

09:48 Preset

09:52 LUCI2 MOS UNIT ERROR

10:12 We are back! Thanks Dave!

11:29 We are done with LUCI, reconfig to PEPSI

PEPSI

MWAbundDisp J0942+4751

11:55 Preset

11:57 Starting exposure

SNR 83/177

MWAbundDisp J0948+4617

12:03 Preset

12:04 Starting exposure

We are getting some clouds. ~1mag of extinction

SNR 88/162

Taking another exposure

SNR 98/199

MWAbundDisp J1000+3505

12:22 Preset

SX needed some special treatment to get on the target

12:26 Starting exposure

SNR 210/446

MWAbundDisp J1015+3806

12:37 Preset

12:38 Starting exposure

MWAbundDisp J1035+3521

12:47 Preset

12:49 Starting exposure

MWAbundDisp J0942+4751

Revisiting for some additional SNR

12:55 Preset

12:57 Starting exposure

MWAbundDisp J1034+3051

13:03 Preset

We missed it on DX

13:07 Starting exposure

MWAbundDisp J1055+2544

13:13 Preset

13:16 Starting exposure

LUCI Calib

bino ima flat H

bino ima flat J

bino ima flat K