



Introduction to Detector Characterization Sessions

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LIGO-G050345-00-Z

Detector Characterization Issues 2005.8.15

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Getting ready for S5

S5 starts at Livingston on Friday October 21 at 8:00 a.m. CDT (L1 only)

H2 joins the run two weeks later on Friday November 4 at 8:00 a.m. PDT

H1 to join somewhat later

DMT monitors:

- New DMT workstations at both observatories should alleviate CPU overload seen in S4 (experience so far?) – See JohnZ's talk
- Critical S4 online monitors in good shape
- Handful of upgraded and new monitors
→ Time running short for completion!

Will hold **M7 mini-run** on weekend of **September 24-25** (start Friday afternoon)



Getting ready for S5

Had a number of start-up troubles with S4:

- Hardware injection machines overtaxed
- Operations procedures for declaring science mode when injecting
- DMT trend changes affecting frame builder
- New DMT monitors not quite working right
- DMT data dropouts

No need to repeat these problems!

Will be pushing for ample testing between now and M7

M7 is NOT a debugging session!

M7 should confirm that the DMT world is ready for prime time



Getting ready for S5

DMT monitors (cont.)

- **Big disruption underway:**

Changing channel names of all DMT minute trends to follow standard convention:

H1:DMT-LCKL_STATE_VECTOR

to make it much easier to find relevant trends with data viewer & ligo_viewer

Hard deadline for implementation:

Tuesday August 23 at noon PDT



Getting ready for S5 - Scimons

Plan for S5 start similar to those for S4:

- 24/7 shift staffing at both sites – 1 expert
- Three 8-hour shifts / day
- First 1-2 weeks likely done mostly by Observatory & local university scientists
- Training slots available for new persons
- Allocation based on FTE counts
- Will solicit request for group constraints / preferences with prompt response requested
 - » Will accommodate requests within reason and where possible



Getting ready for S5 - Scimons

BUT...

S5 is ~18 times longer than S4!

- More shifts per person
- Argues for much longer visits by scientists to save on travel overhead (weeks instead of days)
- Burden likely disproportionately borne by postdocs & graduate students (except in summer)

On the bright side...

All of the above will lead to scimons with better, more uniform expertise

Previous scimon experience quite mixed:

Splendid examples of attentiveness and on-the-fly investigations

But some pretty dismal efforts too...

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Getting ready for S5 – Investigation teams

S4 investigation teams provided valuable feedback to commissioners before and during S4

(special honor to the Glitch Team which focused on burst artifacts)

Important to continue and strengthen such effort in S5

- **Investigations tied to search analyses especially valuable**
- **Peter's proposed search group "war-rooms" to find artifacts that impede marquee searches could guide control room investigations:**
 - **Daily detector elog summaries with key FOM(s)**
 - **More detailed reports on weekly basis for start of S5**



This meeting

Lots of activity to be reported upon:

- Calibrations and use of $h(t)$
- S3 / S4 detector investigations
- S4 hardware injections analysis
- DMT monitor development
- Modelling & filtering

Agenda:

http://gallatin.physics.lsa.umich.edu/~keithr/lscdc/agenda_aug05.txt