

Subject: [Aligo_sus] [Fwd: SUS questions]
From: Janeen Romie <romie_j@ligo.caltech.edu>
Date: Mon, 15 Sep 2003 08:51:33 -0700
To: aligo_sus <aligo_sus@ligo.caltech.edu>

----- Original Message -----

Subject:SUS questions
Date:Mon, 15 Sep 2003 10:02:50 -0400
From:David Shoemaker <dhs@ligo.mit.edu>
To:hazel_j@ligo.caltech.edu, <c.cantley@physics.gla.ac.uk>, Greenhalgh RJS
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CC:Dennis Coyne <coyne@ligo.caltech.edu>, David Ottaway <ottaway@ligo.mit.edu>

Janeen, Caroline, Justin, from discussions about LASTI, we have a little handful of questions I would like to touch on at the telecon this week. Please feel free to distribute this in advance -- anything pre-thinking or email on the subjects will only help. Apologies if some of these are hopelessly naive.

- 1) Can SUS now reasonably decide on the damping approach for the Mode Cleaner suspensions -- specifically, can a commitment to use Eddy Current damping be made, or (less attractively from the LASTI point of view) confirm that OSEM damping will be used? If not, what needs to be done to make that decision and what is the time scale?
- 2) Can a decision on the actual hanging masses be made now for all suspensions? Probably the quad is the only real question here, and I think it should be possible. Does this allow a more definite actual weight for the quad, including structure? if not, what is the time scale for resolving this question?
- 3) Installation at LASTI for the Quads probably involves a variation on the cartridge scheme. Is there thought to segment the Quad suspension so that the penultimate mass and final mass can be installed (or removed for repair of a broken fiber) independently of the rest of the system? This would probably allow an easy installation procedure at LASTI; sounds attractive for reparability (have we decided to allow torches in the vacuum system? that would surprise me!)
- 4) We would like to invite a test plan for the installation further testing of the MC on the HAM in Spring at LASTI, and propose that the SUS folks put together a draft and then LASTI folks will iterate. Probably should plan to have the plan in ~1 month or less.
- 5) Relatively unrelated: I think we should have a plan for the ribbon/fiber downselect and a date for it. We touched on this at the last telecon -- are there differences to the optic flats or other constraints that set a need date for a decision? Are the criteria clear for a technical decision as well as for an evaluation of the risks (fabrication, installation, repair)?

David