



From: Peter Fritschel pf@ligo.mit.edu
Subject: Re: ETM news - RSVP today (Monday) please
Date: April 8, 2013 at 10:43 AM
To: GariLynn Billingsley Billingsley_G@ligo.caltech.edu
Cc: David Shoemaker dhs@mit.edu, Wilkinson Carol wilkinson@ligo-wa.caltech.edu, Marty Levine levine_m@ligo-wa.caltech.edu, Robertson Norna nroberts@ligo.caltech.edu, Harry Gregg harry@american.edu, Eric Gustafson egustafs@ligo.caltech.edu

Gari at al.,

There is really little motivation for 500 ppm vs 750 ppm. The ITM AR is a harder problem, and I don't see that making a 30% improvement in the ETM AR necessarily means anything for the factor of several improvement they need in the ITM AR.

I say AR coat the second pair of ETMs now, and get on to the ITM AR problem. I'd like to give the best chance possible to enable installing a real ETM on L1 at the outset.

Peter

PS. Note that one of the ETMs is slightly out of spec on the ETM transmission (3.85 ppm measured vs. 5+/-1 ppm)

On Apr 8, 2013, at 12:38 PM, GariLynn Billingsley wrote:

Hanford ETMs are done (though out of spec on the AR)
Question: do they delay coating AR for the Livingston ETMs to get it right?

Pro: we get it right
Con: delay getting to the hard work on the ITM AR, could miss the opportunity to install a "real" ETM at Livingston (saves SUS some work)

I've heard from Marty/Carol already - OK with the delay.

Gari

Begin forwarded message:

From: laurent pinard <pinard@lma.in2p3.fr>
Subject: ETM news
Date: April 8, 2013 9:20:50 AM PDT
To: Billingsley GariLynn <Billingsley_G@ligo.caltech.edu>
Cc: Flaminio Raffaele LMA <r.flaminio@lma.in2p3.fr>, Michel Christophe <michel@lma.in2p3.fr>

Dear GariLynn,

I would like to give you some news of the ETM's and have on the ETM AR subject your point of view.

- average Absorption of HR ETM's : 0.37 ppm, 0.38 ppm on 160 mm diameter
- ETM's Transmission : 3.85 ppm, 4.03 ppm (average value on 160 mm)

- Reflectivity of AR on ETM08 : I just have put ETM08 on the CASI bench and unfortunately I found an average reflectivity higher than the spec : around 750 ppm (idem for ETM12). No explanations found as the calibration was very good.

What we are planing to do is to check the AR calibration. This will delay I think by one week the delivery of ETM07 and ETM09. Is it a problem? Or if it is a problem, even if it is higher than the 500 ppm, we can coat the 2 other ETM's as it is. Can it be an opportunity? We are waiting for your advises and comments. Sorry again for this problem.

Best regards.

Laurent

