Client Meeting AITC Chair: Steve

Secretary: Chris **Summary:**

Celine updated on the progress in the project

Actionable Items:

- Figure out the measurements of the frequency sound generator
- Send Celine list of requirements/questions for the laser building team to answer by this week, or next week
- Update Wenjie on the changes to the coolant requirements

Attendance:

Steve (S), Paul (P), Brian (B), Chris Leow (CL), Celine d'Orgeville (CD)

Apologies:

Wenjie (W) – travelling, Alex (A) – had to leave early

Agenda:

| Item | Discussion | Actions + Responsibilities |
|--------------|---------------------------------------|----------------------------|
| Meeting Open | 2:23pm | _ |
| Update | P: Modifications to the 2- | |
| | breadboard concept design. Added | |
| | modifications and consulted with | |
| | Mark Blundell. | |
| | P: James Webb answered all | |
| | questions regarding vibrational | |
| | sensitive components on the EOS | |
| | laser. | |
| | S+P: Most likely oscillator will be | |
| | in clean room due to temperature | |
| | stability. Fibre optic and ethernet | |
| | from the clean room. Sound | |
| | frequency generator needs | |
| | dampening. | |
| | CD: Laser goes into the BTO, then | |
| | the beam will be affected if there | |
| | is introduction of differential | |
| | motion between the laser beam | |
| | and the telescope than compensate | |
| | for that. | |
| | P: who do we talk to re beam | |
| | centring mirrors? | |
| | CD: I think that is me. I can find | |
| | that information on the | |
| | component. Ask me again and be | |
| | insistent and firm if I don't give it | |
| | to you. | |
| | P: Injection seeded amplifier, isn't | |
| | in the design, but he will add it | |
| | back. Sound frequency generator | |
| | is the only thing that needs to be | |
| | considered. | |

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CD: Would you consider doing measurements for the sound frequency generator.
S: priority is low to measure vibration in clean room. So sound frequency generator is the more important thing.

S: Air quality control. 10k class. They don't make specific systems for small box systems. James said that they do it with plastic and fan blowing air downwards that should get it down to that level. CD: but that's the labs S: Similar closed system that will filter out all particulate matter. Monitor to check is an option. CD: Don't want to create vibrations. Mark, or other people from EOS have experience. Gaston worked on air flow in BTO in Gemini LGS Optics.

S: anti-static flooring. Anti-static conductive floors, or anti-static is non-conductive as well. Is there something...?

CD: I don't remember talking to the previous team about it. Talk to

cD: I don't remember talking to the previous team about it. Talk to team making the laser. Making sure the area of the region is correct.

CL: Concept design report template. Wrestling with Latex. But template is there and it will slowly have stuff moved into it. CD: I am still new to Latex, so I understand. Good to hear.

B: confirm power auxiliary cabinet. Power is simple, but communications isn't easy. James was in a rush to leave. 1 ethernet and canvass for control. Dunno if they are going through the cabinet. CD: James has two people contracted out that could answer your questions. Try and find them. B: Can email them. S: Powering of the ANU laser like EOS?

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| Secretary: Chris | | |
|----------------------------|--------------------------------------|--|
| | CD: Suspect that is the case. Start | |
| | as soon as next week at the | |
| | facility. Would be even more | |
| | useful to have those questions and | |
| | constraints. Give it to me next | |
| | | |
| | week or the week after so I can | |
| | send to the laser builders. | |
| | S: Power sockets are an issue. | |
| | Conflict has been resolved, but | |
| | need more information on the | |
| | cooling system with EOS, | |
| | P: hopefully using the same one | |
| | that the EOS system is using. | |
| | P: single cooler of 400W waste | |
| | | |
| | heat. Using chilled water already | |
| | at the telescope, or they will bring | |
| | in their own. | |
| | CD: Question with ANU laser | |
| | would be defining capacity of | |
| | telescope and ANU maximum | |
| | cooling capacity. | |
| | | |
| | S: Laser safety is practically | |
| | covered since there are other lasers | |
| | in the area that has a high-power | |
| | | |
| | laser. Other safety requirements | |
| | only really need it when there's | |
| | maintenance. | |
| | S: Procedure for maintenance. | |
| | CD: Main requirement is still | |
| | enclosed. | |
| Plan for the weeks to come | CD: Preparation of the course? | |
| | P+S: One more audit then the | |
| | poster presentation. Nothing major | |
| | coming up. | |
| | CD: Plan in the coming weeks? | |
| | P: Coming in next week. Cable | |
| | I | |
| | routes next week. Everyone else is | |
| | continuing. | |
| | S: Access to the storage room | |
| | down stairs? Need rope to measure | |
| | the distance. | |
| | CD: We can have a look. | |
| | CD: Update Wenjie on | |
| | requirements changing | |
| Meeting Close | 2:46pm | |
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