**Stony Brook MAP 2016 Annual Report**

**COMPRES Facilities Comments**

**Bin Chen**

The report focuses on the full year operation of the beamline 6BM at APS and the commissioning of the beamline XPD at the NSLS-II. The 6BM beamline has served 32 unique users and appears to be quite demanding for studies on the rheology of the deep Earth. The installation of beamline XPD is reported to encounter some complications, blaming the PUA issue and new regulations and standards enforced by NSLS-II. As the installation of XPD is way behind schedule, it would be good to see timeline for each planned activity listed in the report.

The report by M. Whitaker looks like a CV and lacks details and statistics. His report listed some workshops, but it is difficult to tell whether he organized the workshops or just attended them.

Chen is the sole online support staff for 6BM and her report also looks short and lacks some details. Some narratives of what she has done in the past year would be good.

**Arianna Gleason**

Facility meeting needs of user community: Yes. Science Highlights from Karato, Raterron, and Hunt are very exciting. Walker’s study experienced difficulty with DTcup performance which is unfortunate. Student and early career scientist involvement looks reasonable. Beamline development is experiencing difficulties in interfacing with NSLS II under a PU -- this is extreme. Delay with XPD seems dire. And it’s not clear what can be done to get this on track for success. Whitaker looks to be fairing okay in terms of publishing but I worry about Chen’s opportunities to orchestrate solo science endeavors.

**Anne Pommier**

*-Science*: The Weiner et al. report presents clear scientific highlights (rheology of mantle minerals), but no detail about science is presented in the reports of Chen and Whitaker.

*-User community*: several students (11) are users of this facility. About 74% of proposals accepted. Issue with the COMPRES PU agreement resulted in delayed work (p.10).

*-Management team:* both Chen and Whitaker (100% COMPRES support) are both heavily involved in the development and maintenance of the instruments and participate in research but are not included in pubs. It is a huge lack of recognition for their work and efforts. It is unclear if Chen is involved in any NSF proposal (not listed) and all the proposals of Whitaker as lead PI have been declined; is this something that could be improved? (such as having more time for proposal co-writing?)

*-Facility*: “6BM beamline new and unique in world”; some details and explanations would have been welcome. The XPD beamline is still under progress, and the report explains (with some palpable frustration) that it had to adapt to DAC being removed from XPD facility. This delay with XPD is an ongoing concern as it was already a serious issue in last year’s Committee report. I have to say it was a bit difficult for me to understand the whole story, based on the reports from this year and previous years.

**Mark Rivers**

The science sections of this report are based in part on old work, some of it published in 2014. They don’t belong in in this report. The report on the ultrasonic system has not been updated, and still refers to the system beinf fully integrated on X17B2. It has actually run on 6BM, but there is no mention of this in the report. Why?

The progress on XPD continues to be very slow. While they blame some of this on the COMPRES PU not being completed, that was only a recent problem, and does not explain why they are now nearly 2 years behind where they said they would be in the 2014 annual report, i.e. with commissioning in June 2015. Part of this is certainly the increased red tape and regulations of NSLS-II, but in part it is due to the Stony Brook management. The Delta Tau controllers are in use around the NSLS-II, and also at GSECARS. We have experience in controlling them from EPICS, and would be happy to assist the XPD MAP project with this, but they have not asked for help and are still struggling on their own. They blame the cancellation of the DAC part of XPD for delays saying they had to go “back to the drawing board”, with no explanation of what they actually had to do because of this decision. The DAC and MAP were quite separate, and this does not make sense to me.

The fact that their Delta Tau controllers came without power cords is due to poor purchasing planning, since we did not have this problem when we received our units.

The issue of how they will build a DT25 to work with monochromatic beam is an important one, and they should have spent more than 1 brief paragraph discussing it. They admit that they do not have a solution yet, but “still have a few (geometries) to try”.

Although they give a fairly detailed list of tasks that need to be done to for technical commissioning in 2017-1 they don’t give a timeline with dates so that they can evaluate their progress. They need to have a timeline that NSLS-II agrees to.

Some of the activities they list for 2017-2, like design of a temperature measurement system could begin immediately.

**Dan Shim**

The proposal is rather complex to read as they are talking about many different directions. The development of 6BM appears to be progressing and the situation they described is encouraging. The development in NSLS-II appears to be complicated. It is really the best to progress with installation for NSLS-II when they talk about possibility of re-arrange the stuff depending on the DAC program?