

Report of the LRP Implementation Committee May 2013

The committee membership has changed as follows: Rob Thacker has been replaced by Norm Murray. We thank Rob for his excellent participation and valuable link to the original LRP panel. Brian McNamara was off duty for a few months after successful surgery, and Ingrid Stairs will be on maternity leave for the next several months. Life in LRPIC is challenging.

The past six months have been active on a number of important LRP initiatives, and the committee has participated or followed them as summarized below.

TMT. Yale University has joined as a new partner. NSF has selected TMT for support, but cannot make a substantial budget contribution for some years. The TMT partners have agreed to a business plan which covers 87% of the full construction budget, which will allow a start on a phased construction next year. Permission has been granted for construction at the selected Mauna Kea site. Overall, the project is in promising shape to move ahead.

On the Canadian side, Temple-Scott have distributed copies of the 20-page digest and the 1-page flyer to all MPs. Minister Goodyear has been approached and informed of the project, and the idea has not been dismissed (which is as close to encouragement as we can hope for). It is proposed to keep in touch with the government and key DFAIT individuals to keep them abreast of the new developments, ready to discuss with international partners, and ready them for the anticipated request for construction funds next year.

ACURA have taken on an important role in TMT (and SKA) in partnership with NRC. They are currently advising on the Memorandum to Cabinet for TMT funding that should be submitted later this year. Meetings are arranged every few months for this activity, and have included an LRPIC member. Hutchings and McNamara are members of the TMT planning committee.

Euclid. The plan to obtain the Euclid Northern ground-based survey data via PanSTARRS, described in our last report, has failed. First PanSTARRS need operations funds, rather than work by CADAC, which out the price beyond the budget and work offer we had. Second, CSA responded formally that they will not support this ground-based initiative anyway. Subsequently, it has been proposed that the survey be done on CFHT's refurbished Megacam (see CFHT paragraph below). This new proposal comes with the offer of a place for 40 Canadians on the Euclid team (who now total over 1200, but maybe only half are astronomers). For this, we need to share equal numbers of nights with France to complete g,r,i,z, and now also u-band, and offer the CADAC and Compute Canada resources with no extra support from CSA. While the team membership offer is good (maybe more than we could supply?), the proposal was not received with enthusiasm at the CFHT users meeting, where it was presented

in detail. The time taken to complete this, aside from the Canadian resources issues, is estimated as 2023, which would delay the ngCFHT (optimistic) schedule by some 5 years. A phased or reduced survey was discussed, but not agreed to by Euclid.

CASTOR. In this connection, we note that CSA have issued an RFP to place a contract this year to study detector technology and designs for the CASTOR space telescope concept, and are encouraging informal discussions with international colleagues towards possible collaborations on such a facility. The CASTOR concept, if built, would fulfill the Euclid survey needs better than any ground-based data, and thus potentially satisfy the LRP priority for a significant DE mission.

CFHT. We commented on the CFHT status and future in the last report. Since then, a workshop on ngCFHT was hosted by CFHT in March, attended by about 100 delegates, many from international parties with an interest in joining or supporting ngCFHT. The CFHT in the meantime has issued a call for short-term budget-limited proposals for instrumentation. As part of that, a proposal is being submitted formally proposing that the Euclid Northern survey be done on a refurbished Megacam, which would be dedicated mostly to the Euclid survey noted above. The potential addition of China as a CFHT partner, and assimilation of UKIRT, may further affect this plan. Other proposals, with less use-time expectancy, were presented at the CFHT users meeting. The CFHT SAC will discuss these issues and priorities, and the short-term improvements proposals will be selected later this year.

The ngCFHT proposal is the only one for the long-term planning, and enjoys widespread interest and approval. In order to form the required partnerships, an office at CFHT headquarters has been requested as an important short-term action on this initiative.

The LRPIC (and GAC) have issued statements on LRP priorities in these Euclid/CFHT matters, which is posted on our CASCA website page, so we do not repeat it here. At this juncture, we have no reason to modify those stated priorities.

Other LRP new projects. We have followed events and progress on SKA, CCAT, and the Arctic telescope, but do not have any comments in this report. Ongoing facilities and projects will be covered in reports by the GAC and JCSA.