

From: Andy Boden

To: Palomar/DBSP Observers

Subject: DBSP Engineering Observations

Date: 09 April 2010

Dear Palomar Observers,

As most of you know, a significant fraction of P200 use is in single-object spectroscopy; several of our constituencies (i.e. Caltech, NOAO, Cornell) allocate the majority of their time to projects using our facility Cassegrain Double Spectrograph (DBSP) and TripleSpec. Consequently COO Director Shri Kulkarni has authorized a significant refurbishment of the DBSP red (DBSP-r) camera – with the objective of increasing its sensitivity. The COO Instrument Development group has started its engineering design activities for this DBSP-r upgrade, augmented by Evan Kirby, who has generously agreed to serve as the DBSP-r Upgrade Project Scientist.

As a part of the DBSP-r upgrade, we have undertaken a program in 2010A to collect DBSP engineering data in a broad range of instrument (e.g. dichroic, grating, angle) configurations. These data will be used to understand and document DBSP throughput in both cameras (supporting all science users of DBSP), and to inform the design work in the DBSP-r upgrade. These DBSP engineering data will be taken by our Support Astronomers (led by Jeff Hickey). Evan has outlined the engineering data to be taken: much of it will be taken during afternoon start-up activities, but some of it necessarily will have to be taken during nighttime operations. We estimate (and our initial experiments confirm) that the nighttime impact of these observations will be roughly 10 min per night (when they are executed – typically once per observing run). After a few weeks of the program we will assess for you the data we have taken and how we would like to proceed.

We are asking for your cooperation in supporting this DBSP engineering initiative. With this minimal time impact on observing time we will better document the state of DBSP throughput for all users, and more importantly be able to guide the DBSP-r upgrade to deliver a more effective instrument for all our users.

Thank you for your cooperation and support in this Observatory initiative.

- Andy Boden