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Commissioning and Science Verification

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We expect performance on SOAR to be similar to that on the Blanco (hopefully, somewhat better), so we are allowing proposals for the instrument for semester 2019B. Proposers should use the technical information from the CTIO website (linked above). Any time granted in this fashion is considered "shared risk", but we would not be offering it if there were serious doubts about performance.

Installation and initial testing took place during a mid-March engineering run. We received several proposals for science verifications, some of which we were able to complete or start during the April engineering run. We also performed additional engineering work.

We are still accepting proposals for science verification for June - the Call for Proposals for science verification is [here](#) ^[2].

People who are interesting in helping with science verification should [contact one of the undersigned](#) ^[3]. Preference for science verification will be given to proposals that can produce a useful science result with a few hours or less of data. Proposers who have successfully used the instrument on Blanco are particularly welcome.

April Update

The principal tasks for the April run were (a) improving the optical alignment of the instrument to the telescope and (b) determining the need to make internal adjustments to the instrument's alignment.

We were able to set the match the focus of the telescope in the instrument to the middle of the range for the facility guider, which simplifies guide star acquisition and guiding in general. The pupil alignment (primary on cold stop) was good to start with; there is still some room for improvement but any gains in throughput or reduction in background should be modest at best.

We did, however, determine that the slit viewer is not quite in focus on the spectrograph slit, and that the slit is not quite in focus on the spectrograph detector. The differences are modest, but corrections are

desirable for optimal performance. We carried out the science verification observations by adjusting the telescope focus for minimal slit losses. The effort to correct the detector positions will occur between now and the June engineering/SV run.

We will be posting updates between now and the June run.

Below, a few photos from the installation -

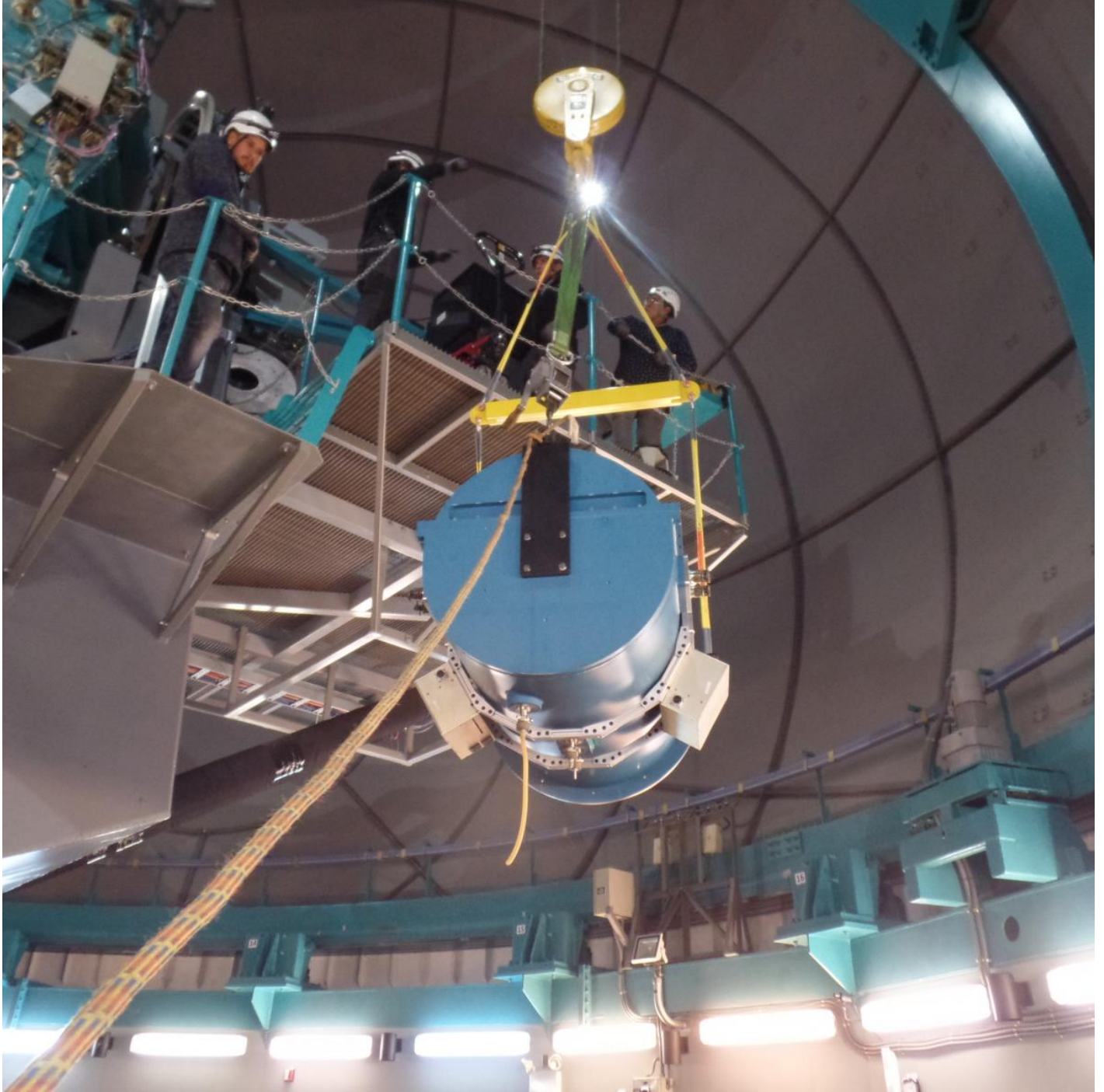


Figure 1 - TSpec being lifted to Nasmyth platform



Figure 2 - Installed on Nasmyth, prior to installation of electronics boxes

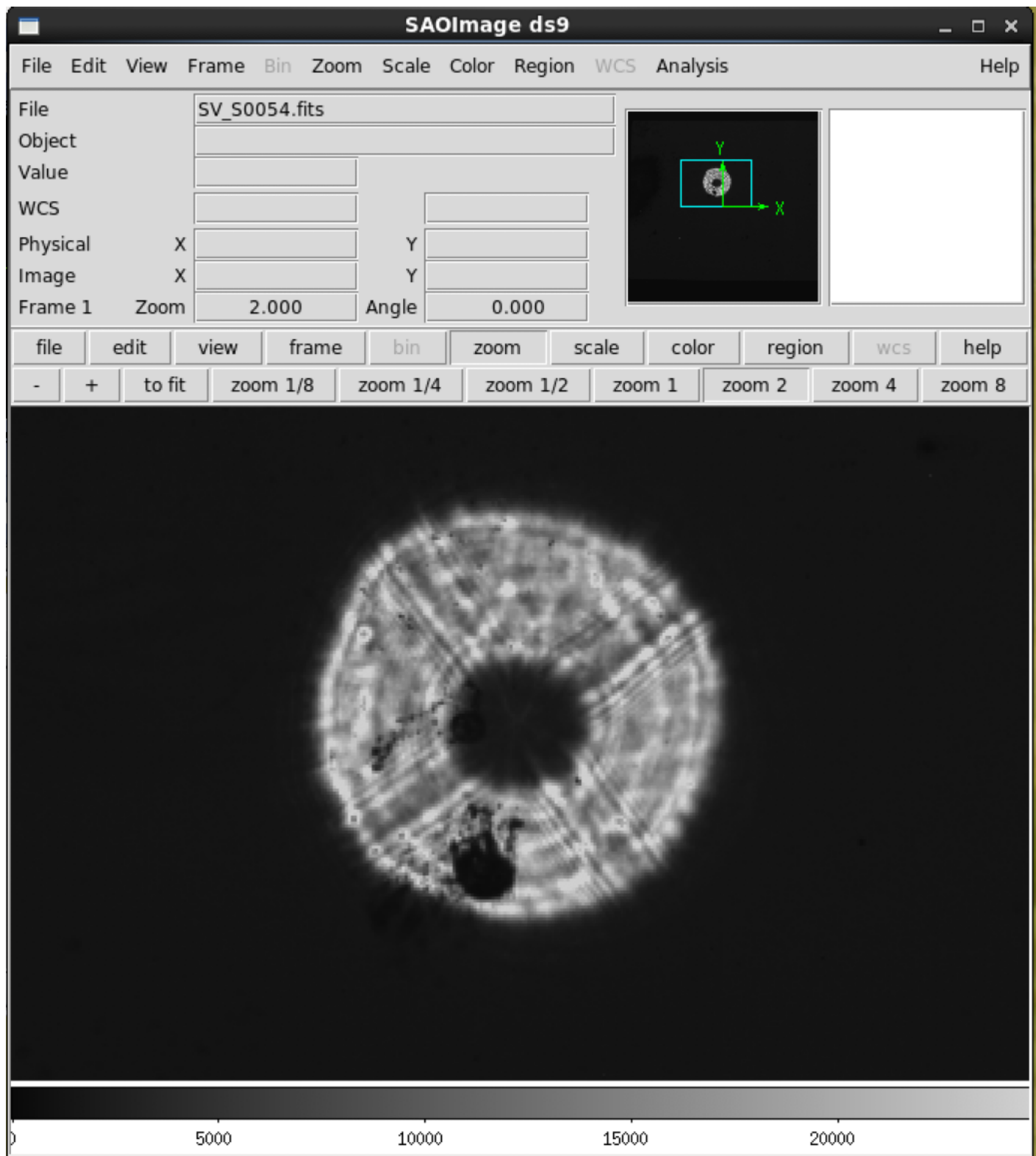


Figure 3 - First light! Quick check of pupil alignment, done by defocusing a bright star.

Source URL: <http://www.ctio.noirlab.edu/soar/content/commissioning-and-science-verification>

Links

[1] <http://www.ctio.noirlab.edu/soar/user/login?destination=node/378%23comment-form>

[2] <http://www.ctio.noirlab.edu/soar/content/triplespec-41-science-verification>

[3] <http://www.ctio.noirlab.edu/soar/content/soar-staff>