

Newsletter #10, 22n of December 2017

(Last Newsletter of 2017!)

Last news from the front (Engineering and Data Quality status):

- Flexure: Testing and analysis is ongoing.
- Contamination: It is still being monitored, but is now as bad as it was around Thanksgiving. The outgassing gasket will be replaced when the camera comes off the telescope (~10 Jan).
- (non-)Linearity: The correction coefficients have been calculated and the correction is ready to be incorporated.
- Shutter-timing experiment analysis is ongoing with good progress.
- Light-leakage: The leakage in R is characterized. New data in g shows that the leakage looks like it is worse in g than R; further analysis is ongoing. The leakage will be mitigated in January when the camera comes off the telescope.
- The overscan has been changed from 150pix wide to 30pix wide.
- The g filter was switched in on Monday; it will remain for the rest of 2017.
- The filter exchanger will be going on the telescope ~10 Jan.
- The camera will be coming off the telescope ~10 Jan.
- Reference images exist (~35k images at the quadrant-level).

Help is still needed to analyse the engineering data!

- Help is needed to analyse the calibration data:
 - People who are interested in giving help should subscribe to the qa list through this [link](#):
 - A weekly telecon is every week, wednesday 11 am PT.

News from working groups

- **Physics of Supernovae and Relativistic Explosions:** This week, the Supernova and Relativistic Explosion group had a demonstration of the GROWTH marshal from Chris Canella, and an update from the machine learning group on the real/bogus classification. We look forward to the first alerts from ZTF, so we can start testing the tools being built with real data! Otherwise, we are busy finishing the SEDM white papers. We will take a break over Christmas week, so our next telecon will be Wednesday, January 3rd. Happy holidays!
- **Cosmology with SNe:** We have completed our SEDm white paper and are now working on selecting the optimal fields for the i-band survey.
- **Stellar Science:** The Stellar group had their last telecon for the year and discussed implications of the not approved high-cadence Galactic Plane survey in the summer months as part of the collaboration time. Next telecon will be January 2nd
- **Machine Learning group and zooniverse:** Real/Bogus almost implemented; Data from ~30000 realish transients have been uploaded to zooniverse. The interface to allow volunteers to mark some of the bogus objects lurking in that set is ready <https://www.zooniverse.org/projects/rswcit/ztf-rb-project>

Currently we have only two categories: Real and Bogus. There is a basic tutorial accompanying the interface. The classifications will be fed to an ML algorithm the output of which will be incorporated for real-time RB scoring to be included with individual packets for subsequent ZTF detections.

Looking forward to volunteers to help with the classification effort using the interface.

Please contact Ashish for questions (aam@astro.caltech.edu)

(Reminder) Science Validation, now with difference imaging!:

To date, we have queue files for only a few science validation experiments in the GitHub repo. If you want data for science validation, you need to provide the queue file(s) for your observations.

For the full procedure, please see the previous Newsletters.

Experiments that require difference imaging are now possible!

(Reminder) Data Access Procedure:

If you have been using the old archive (not the IRSA one for which access is described below), be aware that it will stop working on **January, the 2nd**.

For the full procedure, please see the previous Newsletter.

(Reminder) Archive GUI now ready!

The interactive image search, filtering and visualization tool is now ready:

<https://irsa.ipac.caltech.edu/applications/ztf>

As always, users who have an account will need to log in.

Both epochal images, associated products, and reference image products are supported.

The following applications are not yet working in this tool. Expect these to be finalized in January:

(1) The ability to overlay external catalogs and report precise positions using the cursor on a displayed image.

This is due to ongoing development to support the new TPV distortion representation in image headers.

(2) The Solar System Object ("Precovery") search tool is not yet supported.

Users can submit questions or report problems to:

irsasupport@ipac.caltech.edu

Reminders:

- The ZTF Twitter account is now active! <https://twitter.com/ztfsurvey> Re-tweet @ztfsurvey!
- To use the url shortener (e.g. during telecons, talks, in emails), navigate to <http://zwicky.tf/shorten> (username: ztf password:16chips) and type in the URL you want shortened.
- The Wiki page is active! Check it out at <http://zwicky.tf/wiki>.
- To request access to the wiki page: please email us at ZTF.communication coordinators@gmail.com

"I am the only one who still believes in Santa Claus!" (Edith Piaf)

Have a great and productive week!
Thomas and Maayane