



## SARA - RM OBSERVATORY DIRECTOR'S REPORT

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### I. Summary

This report covers the time period from mid-September 2021 through Late March. During the first part of the time period the Cumbre Vieja volcano was still erupting thus keeping the observatory closed for observations. The eruption subsided in December and the observatory was able to resume observations in early January of 2022. There have been some issues with the observatory since we've reopened. In particular, the persistent issues with the dome caused cessation of observations for several weeks in March. These issues are being addressed. I will let Peter Mack give us the many of the details of the issues.

### II. Telescope Usage

Given that the first three months of the observing period we were closed due to the volcano erupting, the good news is that there were no plagues (not counting COVID) or locusts. Given several winter storms icing the dome and the other dome issues, the usage of the JKT has been dismal. Though when I have used it the image quality is quite nice. During the upcoming time period we'll have a better idea of what the true usage stats are.

### III. Observatory Issues

Tomomi Otani at ERAU has been keeping a running tabulation of issues with all the SARA telescopes. Also, there is a document at <https://www.saraobservatory.org/internal-pages> named ***SARA RM Items and Issues Notes***. Please refer to this document and have it on your own desktop when observing with SARA-ORM. Peter Mack has kept it updated so that most problems and solutions an observer will encounter can be found in the document.

Here I'll focus on the major issues and changes that have occurred in the reporting period.

1. Dome Shutter – We had a major issue with the dome this spring with the dome not shutting completely. This resulted in rain and snow getting into the dome. The instrument was quickly protected from the elements while we had precipitation invading the dome. The issue appears to have been cabling and the dome shutters not aligning properly triggering limits. We have hired a contractor to address the issue for reasonable cost. Hopefully in the very near future we'll have the dome operating properly.
2. Mirror Petals – The mirror petals are still not operating properly. The issue will be resolved during Peter Mack's next visit. So once again as a temporary fix, the mirror petals have been left open. Because of this the telescope must be parked at HA 0 hrs and Dec of -35. This is to prevent dust from collecting on the mirror surface. So, during his next visit, hopefully the mirror petals will be fixed.
3. There have been issues with hitting HA/Alt/Dec/Az limits at somewhat puzzling positions that should not trigger limits. Brian Brondel has investigated this and has addressed the issue in late April.
4. Wind screen – Myself and other observers have noted that when observing below altitudes of ~35o that no photons have been reaching the camera. I thought it may be that the wind screen has somehow gone into action blocking the view at lower altitudes. Peter Mack also concurred with this hypothesis. I
5. ACE software – The primary perennial complaint with the ACE software has been addressed. ACE has created a new version of the software that is now operating on the telescope PC. It is similar to the previous version except that all the GUIs are self in a dedicated window. I've included a screenshot below.

I also suggest that observers use:

- a. camera-related windows only on the camera PC,
- b. and telescope-related windows such as position, dome, etc on the telescope PC.

